

State of Nevada
Division of Environmental Protection
Bureau of Air Pollution Control

APPLICATION FOR CLASS I OPERATING PERMIT TO CONSTRUCT

Please return to: Nevada Division of Environmental Protection
Bureau of Air Pollution Control, Class I Permitting Branch
901 South Stewart Street, Suite 4001
Carson City, Nevada 89701-5249
(775) 687-9350 FAX (775) 687-6396

General Information

- This application is available from the Bureau of Air Pollution Control in a Microsoft Word file, or on the internet at <http://www.ndep.nv.gov/bapc>. All information required in the application may be computer generated and submitted to the Bureau on 3-1/2" disk(s) or CD(s). In addition, one printed copy must be submitted.
- All information required by the "General Company Information" and by the relevant forms in Appendices 1 through 9 must be completed.
- The application filing fee required by NAC 445B.327 must be submitted with the completed application. The fee for a new Class I Operating Permit to Construct is \$20,000. The fee for a modification or revision of a Class I Operating Permit to Construct is \$5,000. Checks must be made payable to: Nevada State Treasurer, Environmental Protection.
- This application packet shall be used for construction of new Class I sources and construction and installation projects at existing Class I sources.
- Separate application forms for specific types of emission units are provided in Appendix 1. They include application forms for: (1) industrial processes, (2) combustion equipment, (3) storage silos, (4) liquid storage tanks and (5) surface area disturbances.
- An application for a Class I operating permit to construct must be signed by a responsible official, as defined in NAC 445B.156. The certification/signature page is contained in Appendix 9.
- All items in the application must be addressed. If an item does not apply "N/A" or similar notation must be entered in the appropriate blank. All other information must be provided. Incomplete applications will be returned to the responsible official within 45 working days of receipt of the application packet.

**Application
for
Class I Air Quality
Operating Permit to
Construct**

GENERAL COMPANY INFORMATION

All applicants shall complete each item or explain in the space provided why no information is needed. Please specify "N/A" (Not Applicable) if necessary. The application will be returned to the applicant if it is deemed incomplete.

1. **COMPANY NAME AND ADDRESS THAT ARE TO APPEAR ON THE OPERATING PERMIT**
[NAC 445B.295.1]:

Sierra Pacific Resources Company
(Name)

6226 West Sahara Avenue
(Address)

Las Vegas NV 89146
(City) (State) (Zip Code)

2. Owner's Name and Address [NAC 445B.295.1]:

Sierra Pacific Power Company and Nevada Power Company
(Name)

6226 West Sahara Avenue
(Address)

Las Vegas NV 89146
(City) (State) (Zip Code)

3. Source Name and Mailing Address, if different from #1 [NAC 445B.295.1]:

Ely Energy Center
(Name)

To Be Determined (TBD)
(Address)

Ely NV TBD
(City) (State) (Zip Code)

4. Physical Location of Stationary Source [NAC 445B.295.8]: (if no physical address, describe location, e.g., 4 miles south of I-80 at xx Interchange)

The Ely Energy Center will be located in the Steptoe Valley approximately 30 miles north of Ely, Nevada west of Highway 93.

Township(s) 19N Range(s) 64E Section(s) 16, 17, 20, 21

5. Plant Manager or Other Appropriate Contact [NAC 445B.295.1]:

Darrell Soyars Project Manager
(Name) (Title)

6100 Neil Road
(Address)

Reno NV 89511
(City) (State) (Zip Code)

(775) 834-4744 (775) 834-3158 dsoyars@sppc.com
(Telephone #) (FAX #) (E-mail address)

GENERAL COMPANY INFORMATION (CONTINUED)

6. Responsible Official Name, Title and Address [NAC 445B.295.1]:

<u>Roberto R. Denis</u>	<u>Senior Vice President, Energy Supply</u>
(Name)	(Title)

<u>6226 West Sahara Avenue, MS 3</u>
(Address)

<u>Las Vegas</u>	<u>NV</u>	<u>89146</u>
(City)	(State)	(Zip Code)

<u>(702) 367-5660</u>	<u>(702) 579-5869</u>	<u>rdenis @sierrapacific.com</u>
(Telephone #)	(FAX #)	(E-mail address)

7. If records required under the operating permit will be kept at a location other than the source, specify that location [NAC 445B.295.7].

<u> </u>
(Name)

<u> </u>
(Address)

<u> </u>	<u> </u>	<u> </u>
(City)	(State)	(Zip Code)

GENERAL COMPANY INFORMATION (CONTINUED)

8. This application is submitted for (please check appropriate boxes below):



A new Class I Operating Permit to Construct



This application is for a source subject to PSD requirements (40 CFR § 52.21).



This application is for a source subject to the following NSPS requirements (40 CFR § 60):

Subpart Da, Subpart Db, Subpart Y, Subpart HHHH, Subpart IIII



This application is for a source subject to the following NESHAP requirements (40 CFR § 63):

Subpart DDDDD



A modification of an existing Class I Operating Permit to Construct



This application is for a source subject to PSD requirements (40 CFR § 52.21).



This application is for a source subject to the following NSPS requirements (40 CFR § 60):



This application is for a source subject to the following NESHAP requirements (40 CFR § 63):



The revision of an existing Class I Operating Permit to Construct



This application is for a source subject to PSD requirements (40 CFR § 52.21).



This application is for a source subject to the following NSPS requirements (40 CFR § 60):



This application is for a source subject to the following NESHAP requirements (40 CFR § 63):

9. The application must contain, if applicable:

- a. For a proposed new major source, or a proposed significant modification to an existing stationary source which is not subject to the provisions of 40 CFR §52.21, include all information as required by NAC 445B.308 to 445B.313, inclusive [NAC 445B.3363.2(b)].
- b. For stationary sources subject to the provisions regarding new source review set forth in 42 USC §§7501 - 7515, inclusive (nonattainment areas), all information required by 42 USC §7503 [NAC 445B.3363.2(b)(3)].
- c. For a proposed new major source or a proposed significant modification to an existing stationary source that is subject to the provisions of 40 CFR §52.21, include all information required by 40 CFR §52.21 [NAC 445B.3363.2(a)].

10. Will the construction occur in more than one phase? ☐ Yes ☒ No

11. If the construction will occur in more than one phase, please provide the projected date of the commencement for each phase of construction:

Phase 1:

Phase 2:

Phase 3:

GENERAL COMPANY INFORMATION (CONTINUED)

12. For a modification of a stationary source, provide a Compliance Assurance Monitoring (CAM) plan for all emission units subject to the monitoring requirements of 40 CFR Part 64. For significant revisions provide a CAM plan for those emission units for which a significant revision to the operating permit is requested and which is required pursuant to the monitoring requirements of 40 CFR Part 64. If a CAM plan is not required, provide an explanation. [NAC 445B.295.8]
13. **Application Submittal:**
Please remove the cover page, Table of Contents and General Information page and all Attachments of the application packet. Submit the remainder of the application packet as your formal application. This should consist of, at a minimum, the Class I Application cover page, the general Company Information, and Appendices 1 through 9.

Appendix 1

EMISSION UNIT APPLICATION FORMS

**(Industrial Process/Combustion Equipment/Storage Silo/
Liquid Storage Tank/ Surface Area Disturbance)**

EMISSION UNIT APPLICATION FORMS

TABLE OF CONTENTS

<u>Form</u>	<u>Page</u>
Industrial Process	
Car Dumper #1 Dust Collector/Coal Unloading Belt Feeder Transfer Point	1
Transfer Tower #1 Dust Collector	11
Transfer Tower #2 Dust Collector	21
Crusher Building Dust Collector	31
Transfer Tower #3 Dust Collector	41
Coal Reclaim Conveyor and Tunnel #1 Dust Collector	51
Coal Reclaim Conveyor and Tunnel #2 Dust Collector	61
Limestone Preparation Building Dust Collector	71
Limestone Reclaim Tunnel Dust Collector	81
Limestone Unloading Building dust collector	91
24-Cell Cooling Tower #1	101
24-Cell Cooling Tower #2	111
Coal Stockout Conveyor	121
Limestone Unloading Conveyor Transfer Point	131
Limestone Silo A Loading Conveyor Transfer Point	141
Limestone Silo B Loading Conveyor Transfer Point	151
Gypsum Stockout Conveyor	161
Landfill Stockout	171
Combustion Equipment	
Unit #1 Electric Utility Boiler	1
Unit #2 Electric Utility Boiler	12
Auxiliary Boiler	23
3 MW Diesel Generator	33
Diesel Engine for Fire Pump (788 hp)	43
Diesel Fire Water Booster Pump (90 hp)	53
Diesel Engine Generator (750 kW)	63
Emergency SO ₂ Absorber Quench Pump – Diesel	73
Propane Spark Ignited Communication Auxiliary Generator	83
Storage Silo	
Coal Storage Dome (#1) – Dust Collector	1
Coal Storage Dome (#2) – Dust Collector	11
Coal Tripper Floor Unit #1 Dust Collector A	21
Coal Tripper Floor Unit #1 Dust Collector B	31
Coal Tripper Floor Unit #2 Dust Collector A	41
Coal Tripper Floor Unit #2 Dust Collector B	51
Limestone Silo A Dust Collector	61
Limestone Silo B Dust Collector	72
Fly Ash Silo (#1) – Dust Collector	83
Fly Ash Silo (#2) – Dust Collector	93
Bottom Ash Silo (#1) – Dust Collector	103
Bottom Ash Silo (#2) – Dust Collector	113
Dry Sorbent Injection Silo Unit #1 Dust Collector	123
Powdered Activated Carbon Silo Unit #1 Dust Collector	133
Dry Sorbent Injection Silo Unit #2 Dust Collector	143
Powdered Activated Carbon Silo Unit #2 Dust Collector	153

**EMISSION UNIT APPLICATION FORMS
TABLE OF CONTENTS**

<u>Form</u>	<u>Page</u>
Storage Silo (Continued)	
Soda Ash Storage Silo Dust Collector.....	163
Lime Storage Silo Dust Collector.....	173
Magnesium Hydroxide Storage Silo Dust Collector	183
Liquid Storage Tank	
Liquid Storage Tank 2,000,000 gallons.....	1
Liquid Storage Tank 1,000,000 gallons.....	10
Liquid Storage Tank 60,000 gallons	18
Liquid Storage Tank 60,000 gallons	26

INDUSTRIAL PROCESS EMISSION UNIT FORMS

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Car Dumper #1 Dust Collector/Coal Unloading Belt Feeder Transfer Point
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP) / TBP
- d. Model number TBP / TBP Serial number TBP / TBP *Equip. number _____
- e. Date equipment manufactured: TBP / TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☐ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,375,621/ 689,455/
4,375,553 meters N; 689,463 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP/ TBP W TBP/TBP H TBP/TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) TBP / TBP
- b. Requested operating rate (tons per hour)* 4,000 / 4,000
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) TBP / TBP
- g. Requested operating rate (tons per year)* 35,040,000 / 35,040,000
- f. Type of material processed Coal
- g. Minimum moisture content TBP / TBP

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other NA	NA				

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	6.00	
Stack inside diameter (feet)	7.5	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	60.3	
Gas volume flow rate: Actual cubic feet per minute	NA	
Gas volume flow rate: Dry standard cubic feet per minute	160,000	
Unusual stack characteristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) for the entire coal handling system will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	6.86	30.0	Emissions (ton/yr) = flowrate (160,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	6.86	30.0	Emissions (ton/yr) = flowrate (160,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status														
<p>NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment</p> <p>1. Source may not cause or permit the emission of PM₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas:</p> <p>a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat.</p> <p>b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X^{-0.231}</p> <p>c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X^{-0.568}</p> <p>2. For the purposes of paragraphs b and c of subsection 1:</p> <p>a. "X" means the operating rate in million Btu's per hour.</p> <p>b. "Y" means the allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														
<p>SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table:</p> <table><tr><td></td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Heat input in millions of</td><td></td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>.0352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>		Maximum allowable emission of particulate matter in pounds per hour per million	Heat input in millions of		Up to and including 10	0.600	100.0352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
	Maximum allowable emission of particulate matter in pounds per hour per million																
Heat input in millions of																	
Up to and including 10	0.600																
100.0352																
1,000.	0.206																
10,000.	0.091																
100,000.	0.025																
<p>SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X^{-0.231}</p> <p>Where "X" = maximum equipment capacity rate in million Btu's per hour.</p> <p>"Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														
<p>SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X^{-0.568}</p> <p>where "X" = maximum equipment capacity rate in million Btu's per hour.</p> <p>"Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited</p> <ol style="list-style-type: none"> Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour. 	Not Exempt	<p>Car Dumper: $55(4,000)^{0.11} - 40$ $= 96.96 \text{ lb/hr}$</p> <p>Belt Transfer Point: $55(4,000)^{0.11} - 40 = 96.96 \text{ lb/hr}$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.</p>	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Process weight expected to be greater than 60,000 lb/hr	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14$ ($55P^{0.11} - 40$) "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Not Exempt	<p>Car Dumper: $55(4,000)^{0.11} - 40 = 96.96$</p> <p>Belt Transfer Point: $55(4,000)^{0.11} - 40 = 96.96$ lb/hr</p> <p>record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.</p>	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u></p> <ol style="list-style-type: none"> Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel. 	Exempt – Source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.	Exempt – Source does not combust fuel	NA	NA
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <div><div><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</div><div><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</div><div><u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$</div></div> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	Exempt – Source does not combust fuel	NA	NA
NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: E = 0.292P ^{0.904} 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.	Exempt – Source does not emit Sulfur	NA	NA
SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: E = 0.271P ^{0.904} (0.292P ^{0.904}) When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.	Exempt – Source does not emit Sulfur	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.746 - <i>(Federally Enforceable SIP Requirement)</i> <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Transfer Tower #1 Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☐ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,375,331 meters N; 689,549 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP W TBP H TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) TBP
- b. Requested operating rate (tons per hour)* 4,000
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) TBP
- g. Requested operating rate (tons per year)* 4,000
- f. Type of material processed Coal
- g. Minimum moisture content TBP

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	200	
Stack inside diameter (feet)	2.85	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	51.66	
Gas volume flow rate: Actual cubic feet per minute	NA	
Gas volume flow rate: Dry standard cubic feet per minute	21,000	
Unusual stack characteristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) for the entire coal handling system will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.90	3.9	Emissions (ton/yr) = flowrate (21,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.90	3.9	Emissions (ton/yr) = flowrate (21,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>.0352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.0352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.0352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X ^{-0.568} where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	Not Exempt	$55(4,000)^{0.11} - 40 = 96.96$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Process weight expected to be greater than 60,000 lb/hr	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Not Exempt	$55(4000)^{0.11} - 40$ = 96.96 record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 (<i>State Only Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Exempt – Source does not combust fuel	NA	NA
<p>SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X (Y = 0.7X)$ "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	Exempt – Source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X$ ($Y = 0.4X$) </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X$ ($Y = 0.6X$) </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u></p> <ol style="list-style-type: none"> Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: <ol style="list-style-type: none"> If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption. 	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u></p> <p>These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

9 Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Transfer Tower #2 Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☐ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,375,242 meters N; 689,759 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP W TBP H TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) TBP
- b. Requested operating rate (tons per hour)* 5,200
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) TBP
- g. Requested operating rate (tons per year)* 5,200
- f. Type of material processed Coal
- g. Minimum moisture content TBP

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	200	
Stack inside diameter (feet)	2.85	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	51.66	
Gas volume flow rate: Actual cubic feet per minute	NA	
Gas volume flow rate: Dry standard cubic feet per minute	21,000	
Unusual stack characteristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) for the entire coal handling system will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.90	3.9	Emissions (ton/yr) = flowrate (21,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.90	3.9	Emissions (ton/yr) = flowrate (21,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status														
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA														
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td></td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Heat input in millions of</td><td></td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>		Maximum allowable emission of particulate matter in pounds per hour per million	Heat input in millions of		Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
	Maximum allowable emission of particulate matter in pounds per hour per million																
Heat input in millions of																	
Up to and including 10	0.600																
100.	0.352																
1,000.	0.206																
10,000.	0.091																
100,000.	0.025																
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA														
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X ^{-0.568} where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA														

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	Not Exempt	$55(5,200)^{0.11} - 40 = 100.97$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Process weight expected to be greater than 60,000 lb/hr	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14$ ($55P^{0.11} - 40$) "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Not Exempt	$55(5,200)^{0.11} - 40$ = 100.97 record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 (<i>State Only Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Exempt – Source does not combust fuel	NA	NA
<p>SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X$ ($Y = 0.7X$) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	Exempt – Source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X \text{ (} Y = 0.4X \text{)}$ </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X \text{ (} Y = 0.6X \text{)}$ </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} \text{ (} 0.292P^{0.904} \text{)}$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u></p> <ol style="list-style-type: none"> Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: <ol style="list-style-type: none"> If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption. 	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u></p> <p>These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Crusher Building Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☒ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,375,264 meters N; 690,018 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP W TBP H TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) TBP
- b. Requested operating rate (tons per hour)* 2,600
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) 2,600
- g. Requested operating rate (tons per year)* TBP
- f. Type of material processed Coal
- g. Minimum moisture content TBP

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	120	
Stack inside diameter (feet)	3.00	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	56.55	
Gas volume flow rate: Actual cubic feet per minute	NA	
Gas volume flow rate: Dry standard cubic feet per minute	23,000	
Unusual stack charac- teristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily P readings.)

Throughput (tons) for the entire coal handling system will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.99	4.3	Emissions (ton/yr) = flowrate (23,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.99	4.3	Emissions (ton/yr) = flowrate (23,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
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SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X ^{-0.568} where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	Not Exempt	$55(2,600)^{0.11} - 40 = 90.62$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Process weight expected to be greater than 60,000 lb/hr	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Not Exempt	$55(2,600)^{0.11} - 40$ = 90.62 record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 (<i>State Only Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Exempt – Source does not combust fuel	NA	NA
<p>SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X (Y = 0.7X)$ "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	Exempt – Source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X \text{ (} Y = 0.4X \text{)}$ </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X \text{ (} Y = 0.6X \text{)}$ </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} \text{ (} 0.292P^{0.904} \text{)}$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u></p> <ol style="list-style-type: none"> Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: <ol style="list-style-type: none"> If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption. 	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u></p> <p>These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Transfer Tower #3 Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☐ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,374,602 meters N; 690,020 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP W TBP H TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) TBP
- b. Requested operating rate (tons per hour)* 2,600
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) TBP
- g. Requested operating rate (tons per year)* 2,600
- f. Type of material processed Coal
- g. Minimum moisture content TBP

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	200	
Stack inside diameter (feet)	2.85	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	51.66	
Gas volume flow rate: Actual cubic feet per minute	NA	
Gas volume flow rate: Dry standard cubic feet per minute	21,000	
Unusual stack charac- teristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily P readings.)

Throughput (tons) for the entire coal handling system will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.90	3.9	Emissions (ton/yr) = flowrate (21,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.90	3.9	Emissions (ton/yr) = flowrate (21,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status														
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA														
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td></td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Heat input in millions of</td><td></td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>		Maximum allowable emission of particulate matter in pounds per hour per million	Heat input in millions of		Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
	Maximum allowable emission of particulate matter in pounds per hour per million																
Heat input in millions of																	
Up to and including 10	0.600																
100.	0.352																
1,000.	0.206																
10,000.	0.091																
100,000.	0.025																
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA														
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X ^{-0.568} where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA														

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited</p> <ol style="list-style-type: none"> Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour. 	Not Exempt	$55(2,600)^{0.11} - 40 = 90.62$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Process weight expected to be greater than 60,000 lb/hr	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Not Exempt	$55(2,600)^{0.11} - 40$ = 90.62 record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 (<i>State Only Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Exempt – Source does not combust fuel	NA	NA
<p>SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X (Y = 0.7X)$ "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	Exempt – Source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X$ ($Y = 0.4X$) </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X$ ($Y = 0.6X$) </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u></p> <ol style="list-style-type: none"> Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: <ol style="list-style-type: none"> If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption. 	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u></p> <p>These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Coal Reclaim Conveyor and Tunnel #1 Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☐ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,375,340 meters N; 689,533 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP W TBP H TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) TBP
- b. Requested operating rate (tons per hour)* 2,600
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) TBP
- g. Requested operating rate (tons per year)* 2,600
- f. Type of material processed Coal
- g. Minimum moisture content TBP

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	6.00	
Stack inside diameter (feet)	2.07	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	62.2	
Gas volume flow rate: Actual cubic feet per minute	NA	
Gas volume flow rate: Dry standard cubic feet per minute	11,000	
Unusual stack charac- teristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) for the entire coal handling system will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.47	2.1	Emissions (ton/yr) = flowrate (11,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.47	2.1	Emissions (ton/yr) = flowrate (11,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X ^{-0.568} where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited</p> <ol style="list-style-type: none"> Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour. 	Not Exempt	$55(2,600)^{0.11} - 40 = 90.62$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Process weight expected to be greater than 60,000 lb/hr	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Not Exempt	$55(2,600)^{0.11} - 40$ = 90.62 record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 (<i>State Only Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Exempt – Source does not combust fuel	NA	NA
<p>SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X (Y = 0.7X)$ "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	Exempt – Source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X$ ($Y = 0.4X$) </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X$ ($Y = 0.6X$) </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904}$ ($0.292P^{0.904}$) When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Coal Reclaim Conveyor and Tunnel #2 Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☐ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,375,339 meters N; 689,570 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP W TBP H TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) TBP
- b. Requested operating rate (tons per hour)* 2,600
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) TBP
- g. Requested operating rate (tons per year)* 2,600
- f. Type of material processed Coal
- g. Minimum moisture content TBP

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	6.00	
Stack inside diameter (feet)	2.07	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	62.2	
Gas volume flow rate: Actual cubic feet per minute	NA	
Gas volume flow rate: Dry standard cubic feet per minute	11,000	
Unusual stack charac- teristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) for the entire coal handling system will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.47	2.1	Emissions (ton/yr) = flowrate (11,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.47	2.1	Emissions (ton/yr) = flowrate (11,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status														
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA														
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td></td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Heat input in millions of</td><td></td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>		Maximum allowable emission of particulate matter in pounds per hour per million	Heat input in millions of		Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
	Maximum allowable emission of particulate matter in pounds per hour per million																
Heat input in millions of																	
Up to and including 10	0.600																
100.	0.352																
1,000.	0.206																
10,000.	0.091																
100,000.	0.025																
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA														
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X ^{-0.568} where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA														

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited</p> <ol style="list-style-type: none"> Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour. 	Not Exempt	$55(2,600)^{0.11} - 40 = 90.62$ <p>record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.</p>	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Process weight expected to be greater than 60,000 lb/hr	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Not Exempt	$55(2,600)^{0.11} - 40$ = 90.62 record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Exempt – Source does not combust fuel	NA	NA
<p>SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X (Y = 0.7X)$ "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	Exempt – Source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X$ ($Y = 0.4X$) </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X$ ($Y = 0.6X$) </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u></p> <ol style="list-style-type: none"> Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: <ol style="list-style-type: none"> If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption. 	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u></p> <p>These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Limestone Preparation Building Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☐ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,374,864 meters N; 690,108 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP W TBP H TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) TBP
- b. Requested operating rate (tons per hour)* 600
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) TBP
- g. Requested operating rate (tons per year)* 600
- f. Type of material processed Limestone
- g. Minimum moisture content TBP

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Partial enclosure and Baghouse	
Pollutant(s) Controlled	PM	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	80	
Stack inside diameter (feet)	1.25	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	54.3	
Gas volume flow rate: Actual cubic feet per minute	NA	
Gas volume flow rate: Dry standard cubic feet per minute	4,000	
Unusual stack characteristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) for the entire limestone handling system will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.17	0.75	Emissions (ton/yr) = flowrate (4,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.17	0.75	Emissions (ton/yr) = flowrate (4,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
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SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X ^{-0.568} where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	Not Exempt	$55(600)^{0.11} - 40 = 71.16$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Process weight expected to be greater than 60,000 lb/hr	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Not Exempt	$55(600)^{0.11} - 40 = 71.16$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 (<i>State Only Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Exempt – Source does not combust fuel	NA	NA
<p>SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X (Y = 0.7X)$ "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	Exempt – Source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X$ ($Y = 0.4X$) </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X$ ($Y = 0.6X$) </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904}$ ($0.292P^{0.904}$) When "E" is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u></p> <ol style="list-style-type: none"> Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: <ol style="list-style-type: none"> If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption. 	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u></p> <p>These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Limestone Reclaim Tunnel Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☐ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,374,890 meters N; 690,108 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP W TBP H TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) TBP
- b. Requested operating rate (tons per hour)* 600
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) TBP
- g. Requested operating rate (tons per year)* 600
- f. Type of material processed Limestone
- g. Minimum moisture content TBP

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	6.00	
Stack inside diameter (feet)	1.25	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	71.8	
Gas volume flow rate: Actual cubic feet per minute	NA	
Gas volume flow rate: Dry standard cubic feet per minute	4,125	
Unusual stack characteristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily P readings.)

Throughput (tons) for the entire limestone handling system will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.18	0.8	Emissions (ton/yr) = flowrate (4,125 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.18	0.8	Emissions (ton/yr) = flowrate (4,125 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X ^{-0.568} where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited</p> <ol style="list-style-type: none"> Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour. 	Not Exempt	$55(600)^{0.11} - 40 = 71.16$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Process weight expected to be greater than 60,000 lb/hr	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Not Exempt	$55(600)^{0.11} - 40 = 71.16$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 (<i>State Only Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Exempt – Source does not combust fuel	NA	NA
<p>SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X (Y = 0.7X)$ "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	Exempt – Source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X$ ($Y = 0.4X$) </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X$ ($Y = 0.6X$) </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904}$ ($0.292P^{0.904}$) When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u></p> <ol style="list-style-type: none"> Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: <ol style="list-style-type: none"> If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption. 	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u></p> <p>These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Limestone Unloading Building Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☐ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,375,027 meters N; 690,143 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP W TBP H TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) TBP
- b. Requested operating rate (tons per hour)* 600
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) TBP
- g. Requested operating rate (tons per year)* 600
- f. Type of material processed Limestone
- g. Minimum moisture content TBP

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Partial enclosure and Baghouse	
Pollutant(s) Controlled	PM	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	6.00	
Stack inside diameter (feet)	5.0	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	63.6	
Gas volume flow rate: Actual cubic feet per minute	NA	
Gas volume flow rate: Dry standard cubic feet per minute	75,000	
Unusual stack characteristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) for the entire limestone handling system will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	3.2	14.1	Emissions (ton/yr) = flowrate (75,000 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	3.2	14.1	Emissions (ton/yr) = flowrate (75,000 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status														
<p>NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment</p> <p>1. Source may not cause or permit the emission of PM₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas:</p> <p>a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat.</p> <p>b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X^{-0.231}</p> <p>c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X^{-0.568}</p> <p>2. For the purposes of paragraphs b and c of subsection 1:</p> <p>a. "X" means the operating rate in million Btu's per hour.</p> <p>b. "Y" means the allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														
<p>SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table:</p> <table><tr><td></td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Heat input in millions of</td><td></td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>		Maximum allowable emission of particulate matter in pounds per hour per million	Heat input in millions of		Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
	Maximum allowable emission of particulate matter in pounds per hour per million																
Heat input in millions of																	
Up to and including 10	0.600																
100.	0.352																
1,000.	0.206																
10,000.	0.091																
100,000.	0.025																
<p>SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X^{-0.231}</p> <p>Where "X" = maximum equipment capacity rate in million Btu's per hour.</p> <p>"Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														
<p>SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X^{-0.568}</p> <p>where "X" = maximum equipment capacity rate in million Btu's per hour.</p> <p>"Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	Not Exempt	$55(600)^{0.11} - 40 = 71.16$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Process weight expected to be greater than 60,000 lb/hr	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Not Exempt	$55(600)^{0.11} - 40 = 71.16$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection.	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 (<i>State Only Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Exempt – Source does not combust fuel	NA	NA
<p>SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X (Y = 0.7X)$ "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	Exempt – Source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X$ ($Y = 0.4X$) </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X$ ($Y = 0.6X$) </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u></p> <ol style="list-style-type: none"> Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: <ol style="list-style-type: none"> If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption. 	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u></p> <p>These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment 24-Cell Cooling Tower #1
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☐ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,374,247 meters N; 689,742 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP W TBP H TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) 250,000 gallons per minute (gpm)
- b. Requested operating rate (tons per hour)* 250,000 gpm
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) 1.314E+11 gallons per year (gpy)
- g. Requested operating rate (tons per year)* 1.314E+11 gpy
- f. Type of material processed Plant Circulating Water
- g. Minimum moisture content NA

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Drift Eliminators	
Pollutant(s) Controlled	PM	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.0005%	
Stack height (feet from ground level)	47	
Stack inside diameter (feet)	32.8	
Temperature (°F) at design capacity	52.5	
Stack exit velocity (feet per second)	23.4	
Gas volume flow rate: Actual cubic feet per minute	NA	
Gas volume flow rate: Dry standard cubic feet per minute	1,185,726 scfm based on diameter & velocity	
Unusual stack characteristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

The hours of operation for the unit will be recorded on a monthly basis. The drift eliminators will be inspected on an annual basis, and records will show observations made and any corrective actions taken. The circulating water rate in the cooling tower basin will be recorded monthly. The TDS, or equivalent, will be measured in the cooling water basin and recorded monthly.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The drift eliminators will be checked to verify they are functioning properly.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	6.26	27.40	Emissions (ton/yr) = flowrate (250,000 gpm) x drift rate (0.0005%) x water density (8.34 lb/gal) x lb solid/lb water (0.01) x time (60min/hr) x operating hrs (8760 hr/yr) ÷ 2000 lb/ton
Particulates as PM ₁₀	6.26	27.40	Emissions (ton/yr) = flowrate (250,000 gpm) x drift rate (0.0005%) x water density (8.34 lb/gal) x lb solid/lb water (0.01) x time (60min/hr) x operating hrs (8760 hr/yr) ÷ 2000 lb/ton
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
<p>NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment</p> <p>1. Source may not cause or permit the emission of PM₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas:</p> <p>a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat.</p> <p>b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X^{-0.231}</p> <p>c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X^{-0.568}</p> <p>2. For the purposes of paragraphs b and c of subsection 1:</p> <p>a. "X" means the operating rate in million Btu's per hour.</p> <p>b. "Y" means the allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA												
<p>SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table:</p> <table><thead><tr><th>Heat input in millions of</th><th>Maximum allowable emission of particulate matter in pounds per hour per million</th></tr></thead><tbody><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></tbody></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
<p>SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X^{-0.231}</p> <p>Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(1)(c) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	Exempt – Water circulation	NA	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Water circulation	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Water circulation	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Exempt – Source does not combust fuel	NA	NA
<p>SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X (Y = 0.7X)$ "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	Exempt – Source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X$ ($Y = 0.4X$) </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X$ ($Y = 0.6X$) </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904}$ ($0.292P^{0.904}$) When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u></p> <ol style="list-style-type: none"> Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: <ol style="list-style-type: none"> If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption. 	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u></p> <p>These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment 24-Cell Cooling Tower #2
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☐ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,374,244 meters N; 690,383 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP W TBP H TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) 250,000 gallons per minute (gpm)
- b. Requested operating rate (tons per hour)* 250,000 gpm
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) 1.314E+11 gallons per year (gpy)
- g. Requested operating rate (tons per year)* 1.314E+11 gpy
- f. Type of material processed Plant Circulating Water
- g. Minimum moisture content NA

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Drift Eliminators	
Pollutant(s) Controlled	PM	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.0005%	
Stack height (feet from ground level)	47	
Stack inside diameter (feet)	32.8	
Temperature (°F) at design capacity	52.5	
Stack exit velocity (feet per second)	23.4	
Gas volume flow rate: Actual cubic feet per minute	NA	
Gas volume flow rate: Dry standard cubic feet per minute	1,185,726 scfm based on diameter & velocity	
Unusual stack characteristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

The hours of operation for the unit will be recorded on a monthly basis. The drift eliminators will be inspected on an annual basis, and records will show observations made and any corrective actions taken. The circulating water rate in the cooling tower basin will be recorded monthly. The TDS, or equivalent, will be measured in the cooling water basin and recorded monthly.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The drift eliminators will be checked to verify they are functioning properly.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	6.26	27.40	Emissions (ton/yr) = flowrate (250,000 gpm) x drift rate (0.0005%) x water density (8.34 lb/gal) x lb solid/lb water (0.01) x time (60min/hr) x operating hrs (8760 hr/yr) ÷ 2000 lb/ton
Particulates as PM ₁₀	6.26	27.40	Emissions (ton/yr) = flowrate (250,000 gpm) x drift rate (0.0005%) x water density (8.34 lb/gal) x lb solid/lb water (0.01) x time (60min/hr) x operating hrs (8760 hr/yr) ÷ 2000 lb/ton
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status														
<p>NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment</p> <p>1. Source may not cause or permit the emission of PM₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas:</p> <p>a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat.</p> <p>b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X^{-0.231}</p> <p>c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X^{-0.568}</p> <p>2. For the purposes of paragraphs b and c of subsection 1:</p> <p>a. "X" means the operating rate in million Btu's per hour.</p> <p>b. "Y" means the allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														
<p>SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table:</p> <table><tr><td></td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Heat input in millions of</td><td></td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>		Maximum allowable emission of particulate matter in pounds per hour per million	Heat input in millions of		Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
	Maximum allowable emission of particulate matter in pounds per hour per million																
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<p>SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X^{-0.231}</p> <p>Where "X" = maximum equipment capacity rate in million Btu's per hour.</p> <p>"Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														
<p>SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X^{-0.568}</p> <p>where "X" = maximum equipment capacity rate in million Btu's per hour.</p> <p>"Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited</p> <ol style="list-style-type: none"> Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour. 	Exempt – Circulating Water	NA	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Circulating water	NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Circulating water	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.	Exempt – Source does not combust fuel	NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.	Exempt – Source does not combust fuel	NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$	Exempt – Source does not combust fuel	NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Coal Stockout Conveyor
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☐ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,375,285 meters N; 689,887 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP W TBP H TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) TBP
- b. Requested operating rate (tons per hour)* 4,000
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) TBP
- g. Requested operating rate (tons per year)* 35,040,000
- f. Type of material processed Coal
- g. Minimum moisture content TBP

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 2)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperature (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate: Actual cubic feet per minute		
Gas volume flow rate: Dry standard cubic feet per minute		
Unusual stack characteristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Telescoping Chute	
Pollutant(s) Controlled	PM	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 1)	75% (<i>Stationary Source Control Technologies Document for Fine Particulate Matter.</i>)	
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) for the entire coal handling system will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.07	0.31	Emissions (ton/yr) = flowrate (4,000 ton/hr) x drop equation factor (7.03E-05 lb/ton) x efficiency (1-0.75) x operating hrs (8760 hr/yr) x weight conversion (5E-04 ton/lb)
Particulates as PM ₁₀	0.07	0.31	Emissions (ton/yr) = flowrate (4,000 ton/hr) x drop equation factor (7.03E-05 lb/ton) x efficiency (1-0.75) x operating hrs (8760 hr/yr) x weight conversion (5E-04 ton/lb)
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status														
<p>NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment</p> <p>1. Source may not cause or permit the emission of PM₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas:</p> <p>a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat.</p> <p>b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X^{-0.231}</p> <p>c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X^{-0.568}</p> <p>2. For the purposes of paragraphs b and c of subsection 1:</p> <p>a. "X" means the operating rate in million Btu's per hour.</p> <p>b. "Y" means the allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														
<p>SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table:</p> <table><tr><td></td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Heat input in millions of</td><td></td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>		Maximum allowable emission of particulate matter in pounds per hour per million	Heat input in millions of		Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
	Maximum allowable emission of particulate matter in pounds per hour per million																
Heat input in millions of																	
Up to and including 10	0.600																
100.	0.352																
1,000.	0.206																
10,000.	0.091																
100,000.	0.025																
<p>SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X^{-0.231}</p> <p>Where "X" = maximum equipment capacity rate in million Btu's per hour.</p> <p>"Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														
<p>SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X^{-0.568}</p> <p>where "X" = maximum equipment capacity rate in million Btu's per hour.</p> <p>"Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	Not Exempt	$55(4,000)^{0.11} - 40$ = 96.96 lb/hr record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years.	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Process weight greater than 60,000 lb/hr	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14$ ($55P^{0.11} - 40$) "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Not Exempt	$55(4,000)^{0.11} - 40$ = 96.96 lb/hr record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years.	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Exempt – Source does not combust fuel	NA	NA
<p>SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X$ ($Y = 0.7X$) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	Exempt – Source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X \text{ (} Y = 0.4X \text{)}$ </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X \text{ (} Y = 0.6X \text{)}$ </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} \text{ (} 0.292P^{0.904} \text{)}$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u></p> <ol style="list-style-type: none"> Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: <ol style="list-style-type: none"> If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption. 	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u></p> <p>These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Limestone Unloading Conveyor Transfer Point
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☐ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,375,075 meters N; 690,136 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP W TBP H TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) TBP
- b. Requested operating rate (tons per hour)* 600
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) TBP
- g. Requested operating rate (tons per year)* 5,256,000
- f. Type of material processed Limestone
- g. Minimum moisture content TBP

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 2)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperature (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate: Actual cubic feet per minute		
Gas volume flow rate: Dry standard cubic feet per minute		
Unusual stack charac- teristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Lowering Well/Fines Screening	
Pollutant(s) Controlled	PM	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 1)	80% (<i>Stationary Source Control Techniques Document for Fine Particulate Matter</i>)	
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

The hours of operation for the unit will be recorded on a monthly basis. Records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.12	0.54	Emissions (ton/yr) = loading rate (600 ton/hr) x drop equation factor (1.02E-03 lb/ton) x efficiency (1-0.80) x operating hrs (8760 hr/yr) x weight conversion (5E-04 ton/lb)
Particulates as PM ₁₀	0.12	0.54	Emissions (ton/yr) = loading rate (600 ton/hr) x drop equation factor (1.02E-03 lb/ton) x efficiency (1-0.80) x operating hrs (8760 hr/yr) x weight conversion (5E-04 ton/lb)
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X ^{-0.568} where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	Not Exempt	$55(600)^{0.11} - 40 = 71.16 \text{ lb/hr}$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years.	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Process weight greater than 60,000 lb/hr	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Not Exempt	$55(600)^{0.11} - 40 = 71.16 \text{ lb/hr}$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years.	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 (<i>State Only Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Exempt – Source does not combust fuel	NA	NA
<p>SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X (Y = 0.7X)$ "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	Exempt – Source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X$ ($Y = 0.4X$) </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X$ ($Y = 0.6X$) </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904}$ ($0.292P^{0.904}$) When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u></p> <ol style="list-style-type: none"> Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: <ol style="list-style-type: none"> If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption. 	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u></p> <p>These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Limestone Silo A Loading Conveyor Transfer Point
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☐ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,374,864 meters N; 690,108 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP W TBP H TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) TBP
- b. Requested operating rate (tons per hour)* 600
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) TBP
- g. Requested operating rate (tons per year)* 5,256,000
- f. Type of material processed Limestone
- g. Minimum moisture content TBP

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 2)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperature (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate: Actual cubic feet per minute		
Gas volume flow rate: Dry standard cubic feet per minute		
Unusual stack charac- teristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Enclosure	
Pollutant(s) Controlled	PM	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 1)	50% (<i>Nevada Bureau of Air Pollution Control Emission Control Technology</i>)	
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

The hours of operation for the unit will be recorded on a monthly basis. Records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.04	0.17	Emissions (ton/yr) = loading rate (600 ton/hr) x drop equation factor ³ (1.29E-04 lb/ton) x efficiency (1-0.50) x operating hrs (8760 hr/yr) x weight conversion (5E-04 ton/lb)
Particulates as PM ₁₀	0.04	0.17	Emissions (ton/yr) = loading rate (600 ton/hr) x drop equation factor ³ (1.29E-04 lb/ton) x efficiency (1-0.50) x operating hrs (8760 hr/yr) x weight conversion (5E-04 ton/lb)
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

³This drop equation factor was calculated using an average wind speed of 2 m/s to account for enclosed conditions.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status														
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA														
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td></td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Heat input in millions of</td><td></td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>.0352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>		Maximum allowable emission of particulate matter in pounds per hour per million	Heat input in millions of		Up to and including 10	0.600	100.0352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
	Maximum allowable emission of particulate matter in pounds per hour per million																
Heat input in millions of																	
Up to and including 10	0.600																
100.0352																
1,000.	0.206																
10,000.	0.091																
100,000.	0.025																
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA														
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X ^{-0.568} where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA														

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	Not Exempt	$55(600)^{0.11} - 40 = 71.16 \text{ lb/hr}$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years.	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Process weight greater than 60,000 lb/hr	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Not Exempt	$55(600)^{0.11} - 40 = 71.16 \text{ lb/hr}$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years.	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 (<i>State Only Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Exempt – Source does not combust fuel	NA	NA
<p>SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X (Y = 0.7X)$ "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	Exempt – Source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X$ ($Y = 0.4X$) </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X$ ($Y = 0.6X$) </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904}$ ($0.292P^{0.904}$) When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Limestone Silo B Loading Conveyor Transfer Point
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☐ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,374,864 meters N; 690,108 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP W TBP H TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) TBP
- b. Requested operating rate (tons per hour)* 600
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) TBP
- g. Requested operating rate (tons per year)* 5,256,000
- f. Type of material processed Limestone
- g. Minimum moisture content TBP

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 2)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperature (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate: Actual cubic feet per minute		
Gas volume flow rate: Dry standard cubic feet per minute		
Unusual stack characteristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Enclosure	
Pollutant(s) Controlled	PM	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 1)	50% (<i>Nevada Bureau of Air Pollution Control Emission Control Technology</i>)	
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

The hours of operation for the unit will be recorded on a monthly basis. Records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.04	0.17	Emissions (ton/yr) = loading rate (600 ton/hr) x drop equation factor ³ (1.29E-04 lb/ton) x efficiency (1-0.50) x operating hrs (8760 hr/yr) x weight conversion (5E-04 ton/lb)
Particulates as PM ₁₀	0.04	0.17	Emissions (ton/yr) = loading rate (600 ton/hr) x drop equation factor ³ (1.29E-04 lb/ton) x efficiency (1-0.50) x operating hrs (8760 hr/yr) x weight conversion (5E-04 ton/lb)
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)	NA	NA	
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

³This drop equation factor was calculated using an average wind speed of 2 m/s to account for enclosed conditions.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status														
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA														
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td></td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Heat input in millions of</td><td></td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>		Maximum allowable emission of particulate matter in pounds per hour per million	Heat input in millions of		Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
	Maximum allowable emission of particulate matter in pounds per hour per million																
Heat input in millions of																	
Up to and including 10	0.600																
100.	0.352																
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SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X ^{-0.568} where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – Source does not combust fuel	NA	NA														

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited</p> <ol style="list-style-type: none"> Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour. 	Not Exempt	$55(600)^{0.11} - 40 = 71.16 \text{ lb/hr}$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years.	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Process weight greater than 60,000 lb/hr	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Not Exempt	$55(600)^{0.11} - 40 = 71.16 \text{ lb/hr}$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years.	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 (<i>State Only Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Exempt – Source does not combust fuel	NA	NA
<p>SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X (Y = 0.7X)$ "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	Exempt – Source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X$ ($Y = 0.4X$) </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X$ ($Y = 0.6X$) </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904}$ ($0.292P^{0.904}$) When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u></p> <ol style="list-style-type: none"> Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: <ol style="list-style-type: none"> If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption. 	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u></p> <p>These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Gypsum Stockout Conveyor
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☐ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,374,942 meters N; 690,066 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP W TBP H TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) TBP
- b. Requested operating rate (tons per hour)* 400
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) TBP
- g. Requested operating rate (tons per year)* 3,504,000
- f. Type of material processed Gypsum
- g. Minimum moisture content TBP

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Uncontrolled	
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 2)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperature (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate: Actual cubic feet per minute		
Gas volume flow rate: Dry standard cubic feet per minute		
Unusual stack charac- teristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Uncontrolled	
Pollutant(s) Controlled	NA	
Manufacturer	NA	
Manufacturer's Guarantee (see Note 1)	NA	
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily P readings.)

The hours of operation for the unit will be recorded on a monthly basis. Records will show observations made and any corrective actions taken.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.11	0.49	Emissions (ton/yr) = loading rate (400 ton/hr) x storage pile factor (2.82E-04 lb/ton) x efficiency (1-0.00) x operating hrs (8760 hr/yr) x weight conversion (5E-04 ton/lb)
Particulates as PM ₁₀	0.11	0.49	Emissions (ton/yr) = flowrate (400 ton/hr) x storage pile factor (2.82E-04 lb/ton) x efficiency (1-0.00) x operating hrs (8760 hr/yr) x weight conversion (5E-04 ton/lb)
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status														
<p>NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment</p> <p>1. Source may not cause or permit the emission of PM₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas:</p> <p>a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat.</p> <p>b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: $Y = 1.02X^{-0.231}$</p> <p>c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: $Y = 17.0X^{-0.568}$</p> <p>2. For the purposes of paragraphs b and c of subsection 1:</p> <p>a. "X" means the operating rate in million Btu's per hour.</p> <p>b. "Y" means the allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														
<p>SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table:</p> <table><tr><td></td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Heat input in millions of</td><td></td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>		Maximum allowable emission of particulate matter in pounds per hour per million	Heat input in millions of		Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
	Maximum allowable emission of particulate matter in pounds per hour per million																
Heat input in millions of																	
Up to and including 10	0.600																
100.	0.352																
1,000.	0.206																
10,000.	0.091																
100,000.	0.025																
<p>SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: $Y = 1.02X^{-0.231}$</p> <p>Where "X" = maximum equipment capacity rate in million Btu's per hour.</p> <p>"Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														
<p>SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$</p> <p>where "X" = maximum equipment capacity rate in million Btu's per hour.</p> <p>"Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited</p> <ol style="list-style-type: none"> Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour. 	Not Exempt	$55(400)^{0.11} - 40 = 66.31 \text{ lb/hr}$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years.	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Process weight greater than 60,000 lb/hr	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Not Exempt	$55(400)^{0.11} - 40 = 66.31 \text{ lb/hr}$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years.	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 (<i>State Only Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Exempt – Source does not combust fuel	NA	NA
<p>SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X (Y = 0.7X)$ "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	Exempt – Source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X$ ($Y = 0.4X$) </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X$ ($Y = 0.6X$) </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904}$ ($0.292P^{0.904}$) When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u></p> <ol style="list-style-type: none"> Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: <ol style="list-style-type: none"> If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption. 	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u></p> <p>These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Landfill Stockout
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary (\$ 4")
☐ Secondary (< 4" but \$ 1")
☐ Tertiary (< 1")
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,376,496 meters N; 689,153 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- j. Basic equipment dimensions (feet): L TBP W TBP H TBP

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) TBP
- b. Requested operating rate (tons per hour)* 122
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) NA
- e. Total hours required to process batch or charge (if applicable) NA
- f. Maximum operating rate (tons per year) TBP
- g. Requested operating rate (tons per year)* 1,068,720
- f. Type of material processed Coal
- g. Minimum moisture content TBP

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 2)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperature (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate: Actual cubic feet per minute		
Gas volume flow rate: Dry standard cubic feet per minute		
Unusual stack charac- teristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	Water Trucks	
Pollutant(s) Controlled	PM	
Manufacturer	NA	
Manufacturer's Guarantee (see Note 1)	90% (<i>AP-42 Table B.2-3 "Typical Collection Efficiencies for Various Particulate Control Devices"</i>)	
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

The hours of operation for the unit will be recorded on a monthly basis. Records will show observations made and any corrective actions taken.

Inactive areas will be covered with topsoil and revegetated.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.003	0.02	Emissions (ton/yr) = loading rate (122 ton/hr) x drop equation factor (2.82E-04 lb/ton) x efficiency (1-0.90) x operating hrs (8760 hr/yr) x weight conversion (5E-04 ton/lb)
Particulates as PM ₁₀	0.003	0.02	Emissions (ton/yr) = flowrate (122 ton/hr) x storage pile factor (2.82E-04 lb/ton) x efficiency (1-0.00) x operating hrs (8760 hr/yr) x weight conversion (5E-04 ton/lb)
Sulfur Dioxide	NA	NA	
Carbon Monoxide	NA	NA	
Oxides of Nitrogen	NA	NA	
Volatile Organic Compounds	NA	NA	
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status														
<p>NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment</p> <p>1. Source may not cause or permit the emission of PM₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas:</p> <p>a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat.</p> <p>b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X^{-0.231}</p> <p>c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X^{-0.568}</p> <p>2. For the purposes of paragraphs b and c of subsection 1:</p> <p>a. "X" means the operating rate in million Btu's per hour.</p> <p>b. "Y" means the allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														
<p>SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table:</p> <table><tr><td></td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Heat input in millions of</td><td></td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>		Maximum allowable emission of particulate matter in pounds per hour per million	Heat input in millions of		Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Exempt – Source does not combust fuel	NA	NA
	Maximum allowable emission of particulate matter in pounds per hour per million																
Heat input in millions of																	
Up to and including 10	0.600																
100.	0.352																
1,000.	0.206																
10,000.	0.091																
100,000.	0.025																
<p>SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X^{-0.231}</p> <p>Where "X" = maximum equipment capacity rate in million Btu's per hour.</p> <p>"Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														
<p>SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X^{-0.568}</p> <p>where "X" = maximum equipment capacity rate in million Btu's per hour.</p> <p>"Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – Source does not combust fuel	NA	NA														

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Exempt – Source does not combust fuel	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	Not Exempt	$55(122)^{0.11} - 40 = 53.30 \text{ lb/hr}$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years.	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Exempt – Process weight greater than 60,000 lb/hr	NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	Not Exempt	$55(122)^{0.11} - 40 = 53.30 \text{ lb/hr}$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test.	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.	Exempt – Source does not combust fuel	NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.	Exempt – Source does not combust fuel	NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$	Exempt – Source does not combust fuel	NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	Exempt – Source does not emit Sulfur	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	Exempt – Source does not emit Sulfur and source does not combust fuel	NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	Not Exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA

COMBUSTION EMISSION UNIT FORMS

**COMBUSTION EQUIPMENT
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Unit #1 Electric Utility Boiler
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4,374,813 meters N; 690,102 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. **Maximum** design horsepower **OUTPUT** (horsepower per hour) _____
(Please provide for internal combustion engines only)
- b. **Maximum** design heat **INPUT** (million Btu per hour) 8,710
(Please provide for all combustion units except for internal combustion engines)
- c. *Requested operating time: time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8,760

*Note: Please complete if other than the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btu's)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
Diesel	gallons				
	gallons				
Gasoline	gallons				
Propane	gallons/cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								
Bitum/ Sub-bitum	538	8100 BTU/lb	13%	NA	NA	TBP		

If more than one type of fuel is combusted, under this operating scenario, please specify primary fuel and percentage on a maximum hourly and annual basis. If fuel blending is the primary fuel, identify percentages of each fuel blended. Attach additional information to this form if necessary.

*Firing of waste oil will require multi-metals test to ensure fuel is non-hazardous.

Diesel fuel will be used - **only** for startup and flame stabilization of the boiler.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters. This section must be completed.

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)	Wet Scrubber w/ Fabric Filter	Selective Catalytic Reduction with Low NO _x burner and Over Fire Air
Pollutant(s) Controlled	PM, SO ₂ , H ₂ SO ₄ , Pb, HF	NO _x
Manufacturer	TBP	TBP
Manufacturer's Guarantee (see Note 1)	TBP	TBP
Stack height (feet from ground level)	727	727
Stack inside diameter (feet)	36	36
Temperature (°F) at design capacity	124	124
Stack exit velocity (feet per second)	55	55
Gas volume flow rate: actual cubic feet per minute	3,382,914	3,382,914
Gas volume flow rate: dry standard cubic feet per minute	2,246,137	2,246,137
Unusual stack characteristics (e.g., raincap, horizontal discharge)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

The boiler stack will employ continuous emission monitoring system (CEMS) equipment in each flue to track air pollutants in virtually real-time for SO₂, NO_x, carbon dioxide (CO₂), a diluent, carbon monoxide (CO), fuel and flue gas flow, heat input to the boiler and opacity. A CEMS to track SO₂ and a diluent will also be installed at the flue gas desulfurization (FGD) inlet. A data acquisition system will compile, process and store data for the parameters identified above, for the averaging periods specified in an Operating Permit to Construct. The CEMS data will be processed in accordance with 40 CFR Part 60 and 75 to verify compliance with the applicable standards, to monitor control equipment operation performance, and to track SO₂ allowances.

Fuel sulfur content will be provided with each delivery to verify that only distillate fuel oil with a sulfur content of 0.0015% or less is burned during startup or flame stabilization.

A Compliance Assurance Monitoring (CAM) Plan will be developed and submitted to the NDEP-BAPC prior to commencement of commercial operation to verify that the control equipment subject to CAM requirements is operating within specified limits. This plan will specify monitoring procedures that must be followed to ensure that all the control equipments are operating within design parameters.

Following the initial CEMS certification, annual Relative Accuracy Testing Audits (RATA) will be conducted in accordance with 40 CFR Part 60 and Part 75 to verify that the CEMS are meeting the applicable precision and accuracy requirements.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. Procedures for minimizing emissions during startup are based on the manufacturer's warranty. Emissions from startup on fuel oil are controlled with air atomizers which will be checked to verify proper operation.

Control equipment will be in operation when coal is introduced.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	1.74E+02	7.63E+02	0.02 lb/MMBtu x 8710 MMBtu/hr x 8760hr/yr / 2000 lb/ton = 8.39E+02 (Emission factor provided by Cummins and Barnard)
Particulates as PM ₁₀	1.74E+02	7.63E+02	0.02 lb/MMBtu x 8710 MMBtu/hr x 8760hr/yr / 2000 lb/ton = 8.39E+02 (Emission factor provided by Cummins and Barnard)
Sulfur Dioxide	6.97E+02 lb/3-hr based on a 3-hr rolling avg.	2.289E+03	0.06 lb/MMBtu x 8710 MMBtu/hr x 8760hr/yr / 2000 lb/ton = 2.29E+03 (Emission factor provided by Cummins and Barnard) (lb/hr emission factor used is 0.08 lb/MMBtu)
Carbon Monoxide	8.71E+02	3.815E+03	0.1 lb/MMBtu x 8710 MMBtu/hr x 8760hr/yr / 2000 lb/ton = 3.815E+03 (Emission factor provided by Cummins and Barnard)
Oxides of Nitrogen	5.23E+02	2.289E+03	0.06 lb/MMBtu x 8710 MMBtu/hr x 8760hr/yr / 2000 lb/ton = 2.289E+03 (Emission factor provided by Sierra Pacific Resources)
Volatile Organic Compounds	3.05E+01	1.335E+02	0.0035 lb/MMBtu x 8710 MMBtu/hr x 8760hr/yr / 2000 lb/ton = 1.335E+02 (Emission factor provided by Cummins and Barnard)
Lead	2.3E-01	9.9E-01	2.59E-05 lb/MMBtu x 8710 MMBtu/hr x 8760hr/yr / 2000 lb/ton = 0.977 (Emission factor provided by Cummins and Barnard)
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			HAP emission limits are not being requested. These are emission estimates only.
Acetaldehyde	NA	1.34E+00	See Emissions Inventory
Acetophenone	NA	3.50E-02	See Emissions Inventory
Acrolein	NA	6.83E-01	See Emissions Inventory
Benzene	NA	3.06E+00	See Emissions Inventory
Benzyl Chloride	NA	1.65E+00	See Emissions Inventory
Biphenyl	NA	4.0E-03	See Emissions Inventory
Bis(2-ethylhexyl)phthalate	NA	1.72E-01	See Emissions Inventory
Bromoform	NA	9.2E-02	See Emissions Inventory
Carbon disulfide	NA	3.06E-01	See Emissions Inventory
2-Chloroacetophenone	NA	1.6E-02	See Emissions Inventory
Chlorobenzene	NA	5.2E-02	See Emissions Inventory
Chloroform	NA	1.39E-01	See Emissions Inventory

Cumene	NA	1.2E-02	See Emissions Inventory
Dimethyl sulfate	NA	1.13E-01	See Emissions Inventory
2,4-Dinitrotoluene	NA	6.6E-04	See Emissions Inventory
Ethyl benzene	NA	2.21E-01	See Emissions Inventory
Ethyl chloride	NA	9.9E-02	See Emissions Inventory
Ethylene Dichloride	NA	9.4E-02	See Emissions Inventory
Ethylene Dibromide	NA	2.8E-03	See Emissions Inventory
Formaldehyde	NA	5.65E-01	See Emissions Inventory
Hexane	NA	1.58E-01	See Emissions Inventory
Isophorone	NA	1.37E+00	See Emissions Inventory
Methyl bromide	NA	3.77E-01	See Emissions Inventory
Methyl chloride	NA	1.25E+00	See Emissions Inventory
Methyl hydrazine	NA	4.0E-01	See Emissions Inventory
Methyl methacrylate	NA	4.7E-02	See Emissions Inventory
Methyl tert butyl ether	NA	8.2E-02	See Emissions Inventory
Methylene Chloride	NA	2.36E-01	See Emissions Inventory
Naphthalene	NA	3.1E-02	See Emissions Inventory
Phenol	NA	3.8E-02	See Emissions Inventory
Propionaldehyde	NA	8.95E-01	See Emissions Inventory
Styrene	NA	5.9E-02	See Emissions Inventory
Tetrachloroethylene	NA	1.01E-01	See Emissions Inventory
Toluene	NA	5.65E-01	See Emissions Inventory
1,1,1-Trichloroethane	NA	4.7E-02	See Emissions Inventory
Vinyl acetate	NA	1.8E-02	See Emissions Inventory
Xylenes	NA	8.7E-02	See Emissions Inventory
Antimony	NA	4.2E-02	See Emissions Inventory
Arsenic	NA	9.66E-01	See Emissions Inventory
Beryllium	NA	4.9E-02	See Emissions Inventory
Cadmium	NA	1.2E-01	See Emissions Inventory
Chromium	NA	6.12E-01	See Emissions Inventory
Chromium (VI)	NA	1.86E-01	See Emissions Inventory
Cobalt	NA	2.35E-01	See Emissions Inventory
Hydrogen chloride	NA	1.70E+02	See Emissions Inventory
Hydrogen fluoride	NA	1.53E+01	See Emissions Inventory
Manganese	NA	1.15E+00	See Emissions Inventory
Mercury	NA	7.4E-02	See Emissions Inventory
Nickel	NA	6.59E-01	See Emissions Inventory
Selenium	NA	3.06E+00	See Emissions Inventory
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
<p>NAC 445B.2203 (<i>State Only Requirement</i>)</p> <p><u>Emissions of Particulate Matter - Fuel Burning Equipment</u></p> <p>1. Source may not cause or permit the emission of PM₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas:</p> <p>a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat.</p> <p>b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X^{-0.231}</p> <p>c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X^{-0.568}</p> <p>2. For the purposes of paragraphs b and c of subsection 1:</p> <p>a. "X" means the operating rate in million Btu's per hour.</p> <p>b. "Y" means the allowable rate of emission in pounds per million Btu's.</p>	Not Exempt	17.0(8710) ^{-0.568} = 0.0983 lb/MMBtu Fuel usage meters, CEMS, monitor and record hours of op. and heat input.	NA												
<p>SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>)</p> <p><u>Particulate Matter - Fuel Burning Equipment</u></p> <p>Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table:</p> <table><thead><tr><th>Heat input in millions of</th><th>Maximum allowable emission of particulate matter in pounds per hour per million</th></tr></thead><tbody><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100</td><td>0.352</td></tr><tr><td>1,000</td><td>0.206</td></tr><tr><td>10,000</td><td>0.091</td></tr><tr><td>100,000</td><td>0.025</td></tr></tbody></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100	0.352	1,000	0.206	10,000	0.091	100,000	0.025	Not Exempt	0.091 lb/hr per million	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100	0.352														
1,000	0.206														
10,000	0.091														
100,000	0.025														
<p>SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>)</p> <p><u>Particulate Matter - Fuel Burning Equipment</u></p> <p>For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X^{-0.231}</p> <p>Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – Exceeds 4,000 mmBTU/hr	NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(1)(c) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.</p>	Not Exempt	$17.0(8710)^{-0.568} = 0.0983 \text{ lb/MMBtu}$ Fuel usage meters, CEMS, monitor and record hours of op. and heat input.	NA
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	NA	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	NA	NA	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} \text{ (} 4.10P^{0.67} \text{)}$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Not Exempt	$0.6(8,710) = 5,226 \text{ lb/hr}$ CEMS	NA
<p>SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X (Y = 0.7X)$ "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	NA	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X$ ($Y = 0.4X$) </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X$ ($Y = 0.6X$) </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Not Exempt	0.6(8,710) = 5,226 lb/hr CEMS	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904}$ ($0.292P^{0.904}$) When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	NA	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u></p> <ol style="list-style-type: none"> Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: <ol style="list-style-type: none"> If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption. 	Not Exempt	CEMS	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u></p> <p>These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	NA	NA	NA

**COMBUSTION EQUIPMENT
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Unit #2 Electric Utility Boiler
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4,374,813 meters N; 690,114 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. **Maximum** design horsepower **OUTPUT** (horsepower per hour)
(Please provide for internal combustion engines only)
- b. **Maximum** design heat **INPUT** (million Btu per hour) 8,710
(Please provide for all combustion units except for internal combustion engines)
- c. *Requested operating time: time of day 00:00 to 24:00

Hours per day 24 Days per year 365 Hours per year 8,760

*Note: Please complete if other than the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btu's)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
Diesel	gallons				
Gasoline	gallons				
Propane	gallons/cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								
Bitum/ Sub-bitum	538	8100 BTU/lb	13%	NA	NA	TBP		

If more than one type of fuel is combusted, under this operating scenario, please specify primary fuel and percentage on a maximum hourly and annual basis. If fuel blending is the primary fuel, identify percentages of each fuel blended. Attach additional information to this form if necessary.

*Firing of waste oil will require multi-metals test to ensure fuel is non-hazardous.

Diesel fuel will be used - **only** for startup and flame stabilization of the boiler.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters. This section must be completed.

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)	Wet Scrubber w/ Fabric Filter	Selective Catalytic Reduction with Low NO _x burner and Over Fire Air
Pollutant(s) Controlled	PM, SO ₂ , H ₂ SO ₄ , Pb, HF	NO _x
Manufacturer	TBP	TBP
Manufacturer's Guarantee (see Note 1)	TBP	TBP
Stack height (feet from ground level)	727	727
Stack inside diameter (feet)	36	36
Temperature (°F) at design capacity	124	124
Stack exit velocity (feet per second)	55	55
Gas volume flow rate: actual cubic feet per minute	3,382,914	3,382,914
Gas volume flow rate: dry standard cubic feet per minute	2,246,137	2,246,137
Unusual stack characteristics (e.g., raincap, horizontal discharge)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily % P readings.)

The boiler stack will employ continuous emission monitoring system (CEMS) equipment in each flue to track air pollutants in virtually real-time for SO₂, NO_x, carbon dioxide (CO₂), a diluent, carbon monoxide (CO), fuel and flue gas flow, heat input to the boiler and opacity. A CEMS to track SO₂ and a diluent will also be installed at the flue gas desulfurization (FGD) inlet. A data acquisition system will compile, process and store data for the parameters identified above, for the averaging periods specified in an Operating Permit to Construct. The CEMS data will be processed in accordance with 40 CFR Part 60 and 75 to verify compliance with the applicable standards, to monitor control equipment operation performance, and to track SO₂ allowances.

Fuel sulfur content will be provided with each delivery to verify that only distillate fuel oil with a sulfur content of 0.0015% or less is burned during startup or flame stabilization.

A Compliance Assurance Monitoring (CAM) Plan will be developed and submitted to the NDEP-BAPC prior to commencement of commercial operation to verify that the control equipment subject to CAM requirements is operating within specified limits. This plan will specify monitoring procedures that must be followed to ensure that all the control equipments are operating within design parameters.

Following the initial CEMS certification, annual Relative Accuracy Testing Audits (RATA) will be conducted in accordance with 40 CFR Part 60 and Part 75 to verify that the CEMS are meeting the applicable precision and accuracy requirements.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. Procedures for minimizing emissions during startup are based on the manufacturer's warranty. Emissions from startup on fuel oil are controlled with air atomizers which will be checked to verify proper operation.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	1.74E+02	7.63E+02	0.02 lb/MMBtu x 8710 MMBtu/hr x 8760hr/yr / 2000 lb/ton = 8.39E+02 (Emission factor provided by Cummins and Barnard)
Particulates as PM ₁₀	1.74E+02	7.63E+02	0.02 lb/MMBtu x 8710 MMBtu/hr x 8760hr/yr / 2000 lb/ton = 8.39E+02 (Emission factor provided by Cummins and Barnard)
Sulfur Dioxide	6.97E+02 lb/3-hr based on a 3-hr rolling avg.	2.289E+03	0.06 lb/MMBtu x 8710 MMBtu/hr x 8760hr/yr / 2000 lb/ton = 2.29E+03 (Emission factor provided by Cummins and Barnard) (lb/hr emission factor used is 0.08 lb/MMBtu)
Carbon Monoxide	8.71E+02	3.815E+03	0.1 lb/MMBtu x 8710 MMBtu/hr x 8760hr/yr / 2000 lb/ton = 3.815E+03 (Emission factor provided by Cummins and Barnard)
Oxides of Nitrogen	5.23E+02	2.289E+03	0.06 lb/MMBtu x 8710 MMBtu/hr x 8760hr/yr / 2000 lb/ton = 2.289E+03 (Emission factor provided by Sierra Pacific Resources)
Volatile Organic Compounds	3.05E+01	1.335E+02	0.0035 lb/MMBtu x 8710 MMBtu/hr x 8760hr/yr / 2000 lb/ton = 1.335E+02 (Emission factor provided by Cummins and Barnard)
Lead	2.3E-01	9.9E-01	2.59E-05 lb/MMBtu x 8710 MMBtu/hr x 8760hr/yr / 2000 lb/ton = 0.977 (Emission factor provided by Cummins and Barnard)
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			HAP emission limits are not being requested. These are emission estimates only.
Acetaldehyde	NA	1.34E+00	See Emissions Inventory
Acetophenone	NA	3.50E-02	See Emissions Inventory
Acrolein	NA	6.83E-01	See Emissions Inventory
Benzene	NA	3.06E+00	See Emissions Inventory
Benzyl Chloride	NA	1.65E+00	See Emissions Inventory
Biphenyl	NA	4.0E-03	See Emissions Inventory
Bis(2-ethylhexyl)phthalate	NA	1.72E-01	See Emissions Inventory
Bromoform	NA	9.2E-02	See Emissions Inventory
Carbon disulfide	NA	3.06E-01	See Emissions Inventory
2-Chloroacetophenone	NA	1.6E-02	See Emissions Inventory
Chlorobenzene	NA	5.2E-02	See Emissions Inventory
Chloroform	NA	1.39E-01	See Emissions Inventory

Cumene	NA	1.2E-02	See Emissions Inventory
Dimethyl sulfate	NA	1.13E-01	See Emissions Inventory
2,4-Dinitrotoluene	NA	6.6E-04	See Emissions Inventory
Ethyl benzene	NA	2.21E-01	See Emissions Inventory
Ethyl chloride	NA	9.9E-02	See Emissions Inventory
Ethylene Dichloride	NA	9.4E-02	See Emissions Inventory
Ethylene Dibromide	NA	2.8E-03	See Emissions Inventory
Formaldehyde	NA	5.65E-01	See Emissions Inventory
Hexane	NA	1.58E-01	See Emissions Inventory
Isophorone	NA	1.37E+00	See Emissions Inventory
Methyl bromide	NA	3.77E-01	See Emissions Inventory
Methyl chloride	NA	1.25E+00	See Emissions Inventory
Methyl hydrazine	NA	4.0E-01	See Emissions Inventory
Methyl methacrylate	NA	4.7E-02	See Emissions Inventory
Methyl tert butyl ether	NA	8.2E-02	See Emissions Inventory
Methylene Chloride	NA	2.36E-01	See Emissions Inventory
Naphthalene	NA	3.1E-02	See Emissions Inventory
Phenol	NA	3.8E-02	See Emissions Inventory
Propionaldehyde	NA	8.95E-01	See Emissions Inventory
Styrene	NA	5.9E-02	See Emissions Inventory
Tetrachloroethylene	NA	1.01E-01	See Emissions Inventory
Toluene	NA	5.65E-01	See Emissions Inventory
1,1,1-Trichloroethane	NA	4.7E-02	See Emissions Inventory
Vinyl acetate	NA	1.8E-02	See Emissions Inventory
Xylenes	NA	8.7E-02	See Emissions Inventory
Antimony	NA	4.2E-02	See Emissions Inventory
Arsenic	NA	9.66E-01	See Emissions Inventory
Beryllium	NA	4.9E-02	See Emissions Inventory
Cadmium	NA	1.2E-01	See Emissions Inventory
Chromium	NA	6.12E-01	See Emissions Inventory
Chromium (VI)	NA	1.86E-01	See Emissions Inventory
Cobalt	NA	2.35E-01	See Emissions Inventory
Hydrogen chloride	NA	1.70E+02	See Emissions Inventory
Hydrogen fluoride	NA	1.53E+01	See Emissions Inventory
Manganese	NA	1.15E+00	See Emissions Inventory
Mercury	NA	7.4E-02	See Emissions Inventory
Nickel	NA	6.59E-01	See Emissions Inventory
Selenium	NA	3.06E+00	See Emissions Inventory
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
<p>NAC 445B.2203 (<i>State Only Requirement</i>)</p> <p><u>Emissions of Particulate Matter - Fuel Burning Equipment</u></p> <p>1. Source may not cause or permit the emission of PM₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas:</p> <p>a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat.</p> <p>b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X^{-0.231}</p> <p>c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X^{-0.568}</p> <p>2. For the purposes of paragraphs b and c of subsection 1:</p> <p>a. "X" means the operating rate in million Btu's per hour.</p> <p>b. "Y" means the allowable rate of emission in pounds per million Btu's.</p>	Not Exempt	17.0(8710) ^{-0.568} = 0.0983 lb/MMBtu Fuel usage meters, CEMS, monitor and record hours of op. and heat input.	NA												
<p>SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>)</p> <p><u>Particulate Matter - Fuel Burning Equipment</u></p> <p>Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table:</p> <table><thead><tr><th>Heat input in millions of</th><th>Maximum allowable emission of particulate matter in pounds per hour per million</th></tr></thead><tbody><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100</td><td>0.352</td></tr><tr><td>1,000</td><td>0.206</td></tr><tr><td>10,000</td><td>0.091</td></tr><tr><td>100,000</td><td>0.025</td></tr></tbody></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100	0.352	1,000	0.206	10,000	0.091	100,000	0.025	Not Exempt	0.091 lb/hr per million	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100	0.352														
1,000	0.206														
10,000	0.091														
100,000	0.025														
<p>SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>)</p> <p><u>Particulate Matter - Fuel Burning Equipment</u></p> <p>For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X^{-0.231}</p> <p>Where "X" = maximum equipment capacity rate in million Btu's per hour.</p> <p>"Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – Exceeds 4,000 mmBTU/hr	NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(1)(c) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.</p>	Not Exempt	$17.0 (8710)^{-0.568} = 0.0983 \text{ lb/MMBtu}$ Fuel usage meters, CEMS, monitor and record hours of op. and heat input.	NA
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	Not Exempt	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	NA	NA	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 (<i>State Only Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Not Exempt	0.6 (8,710) = 5,226 lb/hr CEMS	NA
<p>SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X (Y = 0.7X)$ "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	NA	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X$ ($Y = 0.4X$) </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X$ ($Y = 0.6X$) </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Not Exempt	0.6 (8,710) = 5,226 lb/hr CEMS	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904}$ ($0.292P^{0.904}$) When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	NA	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u></p> <ol style="list-style-type: none"> Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: <ol style="list-style-type: none"> If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption. 	Not Exempt	CEMS	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u></p> <p>These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	NA	NA	NA

**COMBUSTION EQUIPMENT
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Auxiliary Boiler
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4,374,629 meters N; 690,010 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. **Maximum** design horsepower **OUTPUT** (horsepower per hour) _____
(Please provide for internal combustion engines only)
- b. **Maximum** design heat **INPUT** (million Btu per hour) 220
(Please provide for all combustion units except for internal combustion engines)
- c. *Requested operating time: time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8,760

*Note: Please complete if other than the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btu's)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
No. 2 Diesel	1,571.5 gallons	140,000 BTU/gal (assumed)		0.0015%	
Gasoline	gallons				
Propane	gallons/cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario, please specify primary fuel and percentage on a maximum hourly and annual basis. If fuel blending is the primary fuel, identify percentages of each fuel blended. Attach additional information to this form if necessary.

*Firing of waste oil will require multi-metals test to ensure fuel is non-hazardous.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters. This section must be completed.

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)	Low NO _x Burner	
Pollutant(s) Controlled	NO _x	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 1)	TBP	
Stack height (feet from ground level)	300	
Stack inside diameter (feet)	5	
Temperature (°F) at design capacity	350	
Stack exit velocity (feet per second)	59.06	
Gas volume flow rate: actual cubic feet per minute	69,208	
Gas volume flow rate: dry standard cubic feet per minute	33,129	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Hours of operation and fuel consumption (gallons) for all days in the calendar year that the unit is operated will be monitored and recorded on a daily basis. Low sulfur distillate values of 0.0015% will be verified with fuel delivery certification records.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

Emissions from the unit will be controlled by operating the boiler using good combustion practices in a manner that minimizes emissions.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	4.40	19.27	lb/hr = 0.02 lb/MMBtu x 220 MMBtu/hr ton/yr = lb/hr x 8,760 hr / 2000 lb/ton Manufacturer Data
Particulates as PM ₁₀	4.40	19.27	lb/hr = 0.02 lb/MMBtu x 220 MMBtu/hr ton/yr = lb/hr x 8,760 hr / 2000 lb/ton Manufacturer Data
Sulfur Dioxide	11.00	48.18	lb/hr = 0.05 lb/MMBtu x 220 MMBtu/hr ton/yr = lb/hr x 8,760 hr / 2000 lb/ton Manufacturer Data
Carbon Monoxide	7.92	34.69	lb/hr = 0.036 lb/MMBtu x 220 MMBtu/hr ton/yr = lb/hr x 8,760 hr / 2000 lb/ton Manufacturer Data
Oxides of Nitrogen	22.00	96.36	lb/hr = 0.1 lb/MMBtu x 220 MMBtu/hr ton/yr = lb/hr x 8,760 hr / 2000 lb/ton Manufacturer Data
Volatile Organic Compounds	0.40	1.73	lb/hr = 0.0018 lb/MMBtu x 220 MMBtu/hr ton/yr = lb/hr x 8,760 hr / 2000 lb/ton Manufacturer Data
Lead	2.0E-03	8.7E-03	See Emissions Inventory
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			HAP emission limits are not being requested. These are emission estimates only.
Formaldehyde	NA	4.2E-01	See Emissions Inventory
Arsenic	NA	3.9E-03	See Emissions Inventory
Beryllium	NA	2.9E-03	See Emissions Inventory
Cadmium	NA	2.9E-03	See Emissions Inventory
Chromium	NA	2.9E-03	See Emissions Inventory
Manganese	NA	5.8E-03	See Emissions Inventory
Mercury	NA	2.9E-03	See Emissions Inventory
Nickel	NA	2.9E-03	See Emissions Inventory
Selenium	NA	1.5E-02	See Emissions Inventory
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status														
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.	Not Exempt	1.02(220) ^{-0.231} = 0.293 lb/MMBtu Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 4000 hours per calendar year	NA														
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td></td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Heat input in millions of</td><td></td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>		Maximum allowable emission of particulate matter in pounds per hour per million	Heat input in millions of		Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Not Exempt	0.206 lb/hr per million	NA
	Maximum allowable emission of particulate matter in pounds per hour per million																
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Up to and including 10	0.600																
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SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Not Exempt	1.02(220) ^{-0.231} = 0.293 lb/MMBtu Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 4000 hours per calendar year	NA														

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(1)(c) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – less than 4,000 mmBTU/hr	NA	NA
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	NA	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	NA	NA	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 (3) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 (<i>State Only Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.</p>	Not Exempt	0.7(220) = 154 lb/hr Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 4000 hours per calendar year	NA
<p>SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: $Y = 1.26X (Y = 0.7X)$ "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.</p>	Not Exempt	0.7(220) = 154 lb/hr Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 4000 hours per calendar year	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations:</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <u>Liquid Fuel</u> $Y = 0.7X \text{ (} Y = 0.4X \text{)}$ </div> <div style="text-align: center;"> <u>Solid Fuels</u> $Y = 1.1X \text{ (} Y = 0.6X \text{)}$ </div> <div style="text-align: center;"> <u>Combination Fuel</u> $Y = \frac{L(0.7) + S(1.1)}{L + S}$ </div> </div> <p>"X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.</p> <p>8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.</p>	Exempt – less than 250 MMBtu/hr	NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} \text{ (} 0.292P^{0.904} \text{)}$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	NA	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>	Not Exempt	Visible emissions inspection, max operating of 4000 hrs/yr.	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	NA	NA	NA

**COMBUSTION EQUIPMENT
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment 3 MW Diesel Generator
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
 ☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4,373,576 meters N; 690,390 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. **Maximum** design horsepower **OUTPUT** (horsepower per hour) 4,650
(Please provide for internal combustion engines only)
- b. **Maximum** design heat **INPUT** (million Btu per hour)
(Please provide for all combustion units except for internal combustion engines)
- c. *Requested operating time: time of day 00:00 to 24:00

Hours per day 24 Days per year 365 Hours per year 250

*Note: Please complete if other than the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btu's)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
No. 2 Diesel	138.9 gallons	assume 19,300 Btu/lb (density 7.1 lb/gal = 137,030 Btu/gal		0.0015%	
Gasoline	gallons				
Propane	gallons/cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario, please specify primary fuel and percentage on a maximum hourly and annual basis. If fuel blending is the primary fuel, identify percentages of each fuel blended. Attach additional information to this form if necessary.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters. This section must be completed.

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)	NO _x and CO combustion controls	
Pollutant(s) Controlled	NA	
Manufacturer	NA	
Manufacturer's Guarantee (see Note 1)	NA	
Stack height (feet from ground level)	20.0	
Stack inside diameter (feet)	2.25	
Temperature (°F) at design capacity	820	
Stack exit velocity (feet per second)	72.2	
Gas volume flow rate: actual cubic feet per minute	56,871	
Gas volume flow rate: dry standard cubic feet per minute	17,225	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Hours of operation and fuel consumption (gallons) for all days in the calendar year that the unit is operated will be monitored and recorded on a daily basis.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	1.3	0.17	lb/hr = 0.2 g/kW-hr x 3,000 kW / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 89, Tier 2 limits kW>560
Particulates as PM ₁₀	1.3	0.17	lb/hr = 0.2 g/kW-hr x 3,000 kW / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 89, Tier 2 limits kW>560
Sulfur Dioxide	0.019	0.0024	lb/hr = 0.0016 lb/mmBtu ton/yr = lb/hr x 250 hr / 2000 lb/ton C&B provided lb/hr emission factor
Carbon Monoxide	23.1	2.89	lb/hr = 3.5 g/kW-hr x 3,000 kW / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 89, Tier 2 limits kW>560
Oxides of Nitrogen ³	37.0	4.6	lb/hr = 5.6 g/kW-hr x 3,000 kW / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 89, Tier 2 limits kW>560
Volatile Organic Compounds ³	5.3	0.66	lb/hr = 0.8 g/kW-hr x 3,000 kW / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 89, Tier 2 limits kW>560
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			HAP emission limits are not being requested. These are emission estimates only.
Acetaldehyde	NA	6.00E-05	See Emissions Inventory
Acrolein	NA	1.87E-05	See Emissions Inventory
Benzene	NA	1.85E-03	See Emissions Inventory
Formaldehyde	NA	1.88E-04	See Emissions Inventory
Naphthalene	NA	3.09E-04	See Emissions Inventory
Propylene	NA	6.64E-03	See Emissions Inventory
Toluene	NA	6.69E-04	See Emissions Inventory
Xylenes	NA	4.59E-04	See Emissions Inventory
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

³VOC is assumed as 12.5% of NMHC+NOx and NOx is assumed as 87.5% of NMHC+NOx.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
<p>NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment</p> <p>1. Source may not cause or permit the emission of PM₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas:</p> <p>a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat.</p> <p>b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X^{-0.231}</p> <p>c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X^{-0.568}</p> <p>2. For the purposes of paragraphs b and c of subsection 1:</p> <p>a. "X" means the operating rate in million Btu's per hour.</p> <p>b. "Y" means the allowable rate of emission in pounds per million Btu's.</p>	Not Exempt	Heat input < 10 mmBtu/hr = 0.6 lb/mmBtu Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 250 hours per calendar year	NA												
<p>SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table:</p> <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Not Exempt	0.6 lb/hr per million	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
<p>SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X^{-0.231}</p> <p>Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – heat input < 10 mmBtu/hr	NA	NA												
<p>SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X^{-0.568}</p> <p>where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – less than 4,000 mmBTU/hr	NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	NA	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	NA	NA	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.	Not Exempt	0.7(19) = 13.3 lb/hr Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 250 hours per calendar year	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.	Not Exempt	0.7(19) = 13.3 lb/hr Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 250 hours per calendar year	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$	NA	NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	NA	NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>	Not Exempt	Visible emissions inspection, max operating of 250 hrs/yr.	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	NA	NA	NA

**COMBUSTION EQUIPMENT
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Diesel Engine for Fire Pump
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
 ☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4,374,181 meters N; 689,284 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. **Maximum** design horsepower **OUTPUT** (horsepower per hour) 788
(Please provide for internal combustion engines only)
- b. **Maximum** design heat **INPUT** (million Btu per hour)
(Please provide for all combustion units except for internal combustion engines)
- c. *Requested operating time: time of day 00:00 to 24:00

Hours per day 24 Days per year 365 Hours per year 250

*Note: Please complete if other than the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btu's)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
No. 2 Diesel	32.7 gallons	assume 19,300 Btu/lb (density 7.1 lb/gal = 137,030 Btu/gal		0.0015%	
Gasoline	gallons				
Propane	gallons/cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario, please specify primary fuel and percentage on a maximum hourly and annual basis. If fuel blending is the primary fuel, identify percentages of each fuel blended. Attach additional information to this form if necessary.

*Firing of waste oil will require multi-metals test to ensure fuel is non-hazardous.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters. This section must be completed.

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)	CO and NO _x combustion controls	
Pollutant(s) Controlled	NA	
Manufacturer	NA	
Manufacturer's Guarantee (see Note 1)	NA	
Stack height (feet from ground level)	10.0	
Stack inside diameter (feet)	1.0	
Temperature (°F) at design capacity	1,046	
Stack exit velocity (feet per second)	87.2	
Gas volume flow rate: actual cubic feet per minute	15,970	
Gas volume flow rate: dry standard cubic feet per minute	4,111	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily %P readings.)

Hours of operation and fuel consumption (gallons) for all days in the calendar year that the unit is operated will be monitored and recorded on a daily basis.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.3	0.0326	lb/hr = 0.15 g/hp-hr x 787.5 hp / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 60 Subpart IIII – Table 4
Particulates as PM ₁₀	0.3	0.0326	lb/hr = 0.15 g/hp-hr x 787.5 hp / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 60 Subpart IIII – Table 4
Sulfur Dioxide	0.003	0.0004	lb/hr = 0.0016 lb/mmBtu x 2.01 mmBtu/hr ton/yr = lb/hr x 250 hr / 2000 lb/ton C&B provided lb/hr emission factor
Carbon Monoxide	4.5	0.564	lb/hr = 2.6 g/hp-hr x 787.5 hp / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 60 Subpart IIII – Table 4
Oxides of Nitrogen	7.3	0.911	lb/hr = 4.2 g/hp-hr x 787.5 hp / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 60 Subpart IIII – Table 4
Volatile Organic Compounds	1.0	0.130	lb/hr = 0.6 g/hp-hr x 787.5 hp / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 60 Subpart IIII – Table 4
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			HAP emission limits are not being requested. These are emission estimates only.
Acetaldehyde	NA	5.52E-05	See Emissions Inventory
Acrolein	NA	6.65E-06	See Emissions Inventory
Benzene	NA	6.71E-05	See Emissions Inventory
1,3-Butadiene	NA	2.81E-06	See Emissions Inventory
Formaldehyde	NA	8.49E-05	See Emissions Inventory
Naphthalene	NA	6.10E-06	See Emissions Inventory
Propylene	NA	1.86E-04	See Emissions Inventory
Toluene	NA	2.94E-05	See Emissions Inventory
Xylenes	NA	2.05E-05	See Emissions Inventory
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

³VOC is assumed as 12.5% of NMHC+NOx and NOx is assumed as 87.5% of NMHC+NOx.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status														
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.	Not Exempt	Heat input < 10 mmBtu/hr = 0.6 lb/MMBtu Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 250 hours per calendar year	NA														
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td></td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Heat input in millions of</td><td></td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>.0352</td></tr><tr><td>1,000.</td><td>.0206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>		Maximum allowable emission of particulate matter in pounds per hour per million	Heat input in millions of		Up to and including 10	0.600	100.0352	1,000.0206	10,000.	0.091	100,000.	0.025	Not Exempt	0.6 lb/hr per million	NA
	Maximum allowable emission of particulate matter in pounds per hour per million																
Heat input in millions of																	
Up to and including 10	0.600																
100.0352																
1,000.0206																
10,000.	0.091																
100,000.	0.025																
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – heat input < 10 mmBtu/hr	NA	NA														
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X ^{-0.568} where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.	Exempt – less than 4,000 mmBTU/hr	NA	NA														

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	NA	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	NA	NA	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.	Not Exempt	0.7(4.5) = 3.15 lb/hr Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 250 hours per calendar year	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.	Not Exempt	0.7(4.5) = 3.15 lb/hr Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 250 hours per calendar year	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$	NA	NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	NA	NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>	Not Exempt	Visible emissions inspection, max operating of 250 hrs/yr.	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	NA	NA	NA

**COMBUSTION EQUIPMENT
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Diesel Fire Water Booster Pump
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4,374,597 meters N; 690,010 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. **Maximum** design horsepower **OUTPUT** (horsepower per hour) 90
(Please provide for internal combustion engines only)
- b. **Maximum** design heat **INPUT** (million Btu per hour) _____
(Please provide for all combustion units except for internal combustion engines)
- c. *Requested operating time: time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 250

*Note: Please complete if other than the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btu's)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
No. 2 Diesel	4.2 gallons	assume 19,300 Btu/lb (density 7.1 lb/gal = 137,030 Btu/gal		0.0015%	
Gasoline	gallons				
Propane	gallons/cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario, please specify primary fuel and percentage on a maximum hourly and annual basis. If fuel blending is the primary fuel, identify percentages of each fuel blended. Attach additional information to this form if necessary.

*Firing of waste oil will require multi-metals test to ensure fuel is non-hazardous.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters. This section must be completed.

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)	CO and NO _x combustion controls	
Pollutant(s) Controlled	NA	
Manufacturer	NA	
Manufacturer's Guarantee (see Note 1)	NA	
Stack height (feet from ground level)	10.0	
Stack inside diameter (feet)	0.667	
Temperature (°F) at design capacity	95	
Stack exit velocity (feet per second)	17.3	
Gas volume flow rate: actual cubic feet per minute	518	
Gas volume flow rate: dry standard cubic feet per minute	362	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Hours of operation and fuel consumption (gallons) for all days in the calendar year that the unit is operated will be monitored and recorded on a daily basis.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.1	0.007	lb/hr = 0.3 g/hp-hr x 787.5 hp / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 60 Subpart IIII – Table 4
Particulates as PM ₁₀	0.1	0.007	lb/hr = 0.3 g/hp-hr x 787.5 hp / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 60 Subpart IIII – Table 4
Sulfur Dioxide	0.0004	0.00005	lb/hr = 0.0016 lb/mmBtu x 0.23 mmBtu/hr ton/yr = lb/hr x 250 hr / 2000 lb/ton C&B provided lb/hr emission factor
Carbon Monoxide	0.7	0.092	lb/hr = 3.7 g/hp-hr x 787.5 hp / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 60 Subpart IIII – Table 4
Oxides of Nitrogen	0.6	0.078	lb/hr = 3.1325 g/hp-hr x 787.5 hp / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 60 Subpart IIII – Table 4
Volatile Organic Compounds	0.1	0.011	lb/hr = 0.4375 g/hp-hr x 787.5 hp / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 60 Subpart IIII – Table 4
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			HAP emission limits are not being requested. These are emission estimates only.
Acetaldehyde	NA	5.52E-05	See Emissions Inventory
Acrolein	NA	6.65E-06	See Emissions Inventory
Benzene	NA	6.71E-05	See Emissions Inventory
1,3-Butadiene	NA	2.81E-06	See Emissions Inventory
Formaldehyde	NA	8.49E-05	See Emissions Inventory
Naphthalene	NA	6.10E-06	See Emissions Inventory
Propylene	NA	1.86E-04	See Emissions Inventory
Toluene	NA	2.94E-05	See Emissions Inventory
Xylenes	NA	2.05E-05	See Emissions Inventory
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

³VOC is assumed as 12.5% of NMHC+NOx and NOx is assumed as 87.5% of NMHC+NOx.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
<p>NAC 445B.2203 (<i>State Only Requirement</i>)</p> <p>Emissions of Particulate Matter - Fuel Burning Equipment</p> <p>1. Source may not cause or permit the emission of PM₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas:</p> <p>a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat.</p> <p>b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X^{-0.231}</p> <p>c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X^{-0.568}</p> <p>2. For the purposes of paragraphs b and c of subsection 1:</p> <p>a. "X" means the operating rate in million Btu's per hour.</p> <p>b. "Y" means the allowable rate of emission in pounds per million Btu's.</p>	Not Exempt	Heat input < 10 mmBtu/hr = 0.6 lb/MMBtu Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 250 hours per calendar year	NA												
<p>SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>)</p> <p>Particulate Matter - Fuel Burning Equipment</p> <p>Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table:</p> <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>.0352</td></tr><tr><td>1,000.</td><td>.0206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.0352	1,000.0206	10,000.	0.091	100,000.	0.025	Not Exempt	0.6 lb/hr per million	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.0352														
1,000.0206														
10,000.	0.091														
100,000.	0.025														
<p>SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>)</p> <p>Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X^{-0.231}</p> <p>Where "X" = maximum equipment capacity rate in million Btu's per hour.</p> <p>"Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – heat input < 10 mmBtu/hr	NA	NA												
<p>SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>)</p> <p>Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X^{-0.568}</p> <p>where "X" = maximum equipment capacity rate in million Btu's per hour.</p> <p>"Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – less than 4,000 mmBTU/hr	NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	NA	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	NA	NA	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.	Not Exempt	0.7(0.6) = 0.42 lb/hr Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 250 hours per calendar year	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.	Not Exempt	0.7(0.6) = 0.42 lb/hr Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 250 hours per calendar year	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$	NA	NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>)</p> <p><u>Other Processes Which Emit Sulfur</u></p> <p>1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation:</p> $E = 0.292P^{0.904}$ <p>2. For the purposes of subsection 1:</p> <p>(a) "E" means the allowable sulfur emission in pounds per hour.</p> <p>(b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>)</p> <p><u>Other Sulfur Emitting Processes</u></p> <p>SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation:</p> $E = 0.271P^{0.904} (0.292P^{0.904})$ <p>When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour.</p> <p>Where:</p> <p>"E" is the allowable sulfur emission in kilograms (pounds) per hour,</p> <p>"P" is the total feed sulfur in kilograms (pounds) per hour.</p> <p>SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>)</p> <p><u>Other Sulfur Emitting Processes</u></p> <p>SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	NA	NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>)</p> <p><u>Maximum Opacity of Emissions</u></p> <p>1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods:</p> <p>(a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60.</p> <p>(b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h).</p> <p>2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>	Not Exempt	Visible emissions inspection, max operating of 250 hrs/yr.	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	NA	NA	NA

**COMBUSTION EQUIPMENT
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Diesel Engine Generator – 750 kW
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4,374,628 meters N; 690,006 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. **Maximum** design horsepower **OUTPUT** (horsepower per hour) 1,013 (750 kW)
(Please provide for internal combustion engines only)
- b. **Maximum** design heat **INPUT** (million Btu per hour) _____
(Please provide for all combustion units except for internal combustion engines)
- c. *Requested operating time: time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 250

*Note: Please complete if other than the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btu's)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
No. 2 Diesel	37.4 gallons	assume 19,300 Btu/lb (density 7.1 lb/gal = 137,030 Btu/gal		0.0015%	
Gasoline	gallons				
Propane	gallons/cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario, please specify primary fuel and percentage on a maximum hourly and annual basis. If fuel blending is the primary fuel, identify percentages of each fuel blended. Attach additional information to this form if necessary.

*Firing of waste oil will require multi-metals test to ensure fuel is non-hazardous.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters. This section must be completed.

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)	CO and NO _x combustion controls	
Pollutant(s) Controlled	NA	
Manufacturer	NA	
Manufacturer's Guarantee (see Note 1)	NA	
Stack height (feet from ground level)	20.0	
Stack inside diameter (feet)	1.167	
Temperature (°F) at design capacity	990	
Stack exit velocity (feet per second)	74.6	
Gas volume flow rate: actual cubic feet per minute	17,901	
Gas volume flow rate: dry standard cubic feet per minute	4,786	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Hours of operation and fuel consumption (gallons) for all days in the calendar year that the unit is operated will be monitored and recorded on a daily basis.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.3	0.041	lb/hr = 0.2 g/kW-hr x 750 kW / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 89, Tier 2 limits kW>560
Particulates as PM ₁₀	0.3	0.041	lb/hr = 0.2 g/kW-hr x 750 kW / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 89, Tier 2 limits kW>560
Sulfur Dioxide	0.004	0.0005	lb/hr = 0.0016 lb/mmBtu x 2.58 mmBtu/hr ton/yr = lb/hr x 250 hr / 2000 lb/ton C&B provided lb/hr emission factor
Carbon Monoxide	5.8	0.72	lb/hr = 3.5 g/kW-hr x 750 kW / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 89, Tier 2 limits kW>560
Oxides of Nitrogen	9.3	1.2	lb/hr = 5.6 g/kW-hr x 750 kW / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 89, Tier 2 limits kW>560
Volatile Organic Compounds	1.3	0.165	lb/hr = 0.8 g/kW-hr x 750 kW / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 89, Tier 2 limits kW>560
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			HAP emission limits are not being requested. These are emission estimates only.
Acetaldehyde	NA	1.61E-05	See Emissions Inventory
Acrolein	NA	5.05E-06	See Emissions Inventory
Benzene	NA	4.97E-04	See Emissions Inventory
Formaldehyde	NA	5.05E-05	See Emissions Inventory
Naphthalene	NA	8.33E-05	See Emissions Inventory
Propylene	NA	1.79E-03	See Emissions Inventory
Toluene	NA	1.80E-04	See Emissions Inventory
Xylenes	NA	1.24E-04	See Emissions Inventory
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

³VOC is assumed as 12.5% of NMHC+NOx and NOx is assumed as 87.5% of NMHC+NOx.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status														
<p>NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment</p> <p>1. Source may not cause or permit the emission of PM₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas:</p> <p>a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat.</p> <p>b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X^{-0.231}</p> <p>c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X^{-0.568}</p> <p>2. For the purposes of paragraphs b and c of subsection 1:</p> <p>a. "X" means the operating rate in million Btu's per hour.</p> <p>b. "Y" means the allowable rate of emission in pounds per million Btu's.</p>	Not Exempt	Heat input < 10 mmBtu/hr = 0.6 lb/MMBtu Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 250 hours per calendar year	NA														
<p>SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table:</p> <table><tr><td></td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Heat input in millions of</td><td></td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>		Maximum allowable emission of particulate matter in pounds per hour per million	Heat input in millions of		Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Not Exempt	0.6 lb/hr per million	NA
	Maximum allowable emission of particulate matter in pounds per hour per million																
Heat input in millions of																	
Up to and including 10	0.600																
100.	0.352																
1,000.	0.206																
10,000.	0.091																
100,000.	0.025																
<p>SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X^{-0.231}</p> <p>Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – heat input < 10 mmBtu/hr	NA	NA														
<p>SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X^{-0.568}</p> <p>where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – less than 4,000 mmBTU/hr	NA	NA														

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	NA	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	NA	NA	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.	Not Exempt	0.7(5.1) = 3.57 lb/hr Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 250 hours per calendar year	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.	Not Exempt	0.7(5.1) = 3.57 lb/hr Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 250 hours per calendar year	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$	NA	NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>)</p> <p><u>Other Processes Which Emit Sulfur</u></p> <p>1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation:</p> $E = 0.292P^{0.904}$ <p>2. For the purposes of subsection 1:</p> <p>(a) "E" means the allowable sulfur emission in pounds per hour.</p> <p>(b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>)</p> <p><u>Other Sulfur Emitting Processes</u></p> <p>SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation:</p> $E = 0.271P^{0.904} (0.292P^{0.904})$ <p>When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour.</p> <p>Where:</p> <p>"E" is the allowable sulfur emission in kilograms (pounds) per hour,</p> <p>"P" is the total feed sulfur in kilograms (pounds) per hour.</p> <p>SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>)</p> <p><u>Other Sulfur Emitting Processes</u></p> <p>SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	NA	NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>)</p> <p><u>Maximum Opacity of Emissions</u></p> <p>1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods:</p> <p>(a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60.</p> <p>(b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h).</p> <p>2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>	Not Exempt	Visible emissions inspection, max operating of 250 hrs/yr.	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	NA	NA	NA

**COMBUSTION EQUIPMENT
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

9 Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Emergency SO2 Absorber Quench Pump - Diesel
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4,374,168 meters N; 689,284 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. **Maximum** design horsepower **OUTPUT** (horsepower per hour) 683
(Please provide for internal combustion engines only)
- b. **Maximum** design heat **INPUT** (million Btu per hour) _____
(Please provide for all combustion units except for internal combustion engines)
- c. *Requested operating time: time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 250

*Note: Please complete if other than the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btu's)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
No. 2 Diesel	29.1 gallons	assume 19,300 Btu/lb (density 7.1 lb/gal = 137,030 Btu/gal		0.0015%	
Gasoline	gallons				
Propane	gallons/cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario, please specify primary fuel and percentage on a maximum hourly and annual basis. If fuel blending is the primary fuel, identify percentages of each fuel blended. Attach additional information to this form if necessary.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters. This section must be completed.

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)	CO and NO _x combustion controls	
Pollutant(s) Controlled	NA	
Manufacturer	NA	
Manufacturer's Guarantee (see Note 1)	NA	
Stack height (feet from ground level)	10.0	
Stack inside diameter (feet)	1.0	
Temperature (°F) at design capacity	1,000	
Stack exit velocity (feet per second)	65.8	
Gas volume flow rate: actual cubic feet per minute	11,675	
Gas volume flow rate: dry standard cubic feet per minute	3,100	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Hours of operation and fuel consumption (gallons) for all days in the calendar year that the unit is operated will be monitored and recorded on a daily basis.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.2	0.03	lb/hr = 0.15 g/hp-hr x 682.5 hp / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 60 Subpart IIII – Table 4
Particulates as PM ₁₀	0.2	0.03	lb/hr = 0.15 g/hp-hr x 682.5 hp / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 60 Subpart IIII – Table 4
Sulfur Dioxide	0.003	0.0003	lb/hr = 0.0016 lb/mmBtu x 1.74 mmBtu/hr ton/yr = lb/hr x 250 hr / 2000 lb/ton C&B provided lb/hr emission factor
Carbon Monoxide	3.9	0.49	lb/hr = 2.6 g/hp-hr x 682.5 hp / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 60 Subpart IIII – Table 4
Oxides of Nitrogen	3.9	0.5	lb/hr = 2.625 g/hp-hr x 682.5 hp / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 60 Subpart IIII – Table 4
Volatile Organic Compounds	0.6	0.07	lb/hr = 0.375 g/hp-hr x 682.5 hp / 453.59 g/lb ton/yr = lb/hr x 250 hr / 2000 lb/ton 40 CFR Part 60 Subpart IIII – Table 4
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			HAP emission limits are not being requested. These are emission estimates only.
Acetaldehyde	NA	3.82E-04	See Emissions Inventory
Acrolein	NA	4.61E-05	See Emissions Inventory
Benzene	NA	4.65E-04	See Emissions Inventory
1,3-Butadiene	NA	1.95E-05	See Emissions Inventory
Formaldehyde	NA	5.88E-04	See Emissions Inventory
Naphthalene	NA	4.23E-05	See Emissions Inventory
Propylene	NA	1.29E-03	See Emissions Inventory
Toluene	NA	2.04E-04	See Emissions Inventory
Xylenes	NA	1.42E-04	See Emissions Inventory
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

³VOC is assumed as 12.5% of NMHC+NOx and NOx is assumed as 87.5% of NMHC+NOx.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
<p>NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment</p> <p>1. Source may not cause or permit the emission of PM₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas:</p> <p>a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat.</p> <p>b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X^{-0.231}</p> <p>c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X^{-0.568}</p> <p>2. For the purposes of paragraphs b and c of subsection 1:</p> <p>a. "X" means the operating rate in million Btu's per hour.</p> <p>b. "Y" means the allowable rate of emission in pounds per million Btu's.</p>	Not Exempt	Heat input < 10 mmBtu/hr = 0.6 lb/MMBtu Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 250 hours per calendar year	NA												
<p>SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table:</p> <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>.0352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.0352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Not Exempt	0.6 lb/hr per million	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.0352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
<p>SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X^{-0.231}</p> <p>Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – heat input < 10 mmBtu/hr	NA	NA												
<p>SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X^{-0.568}</p> <p>where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – less than 4,000 mmBtu/hr	NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	NA	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	NA	NA	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.	Not Exempt	0.7(4.0) = 2.8 lb/hr Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 250 hours per calendar year	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.	Not Exempt	0.7(4.0) = 2.8 lb/hr Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 250 hours per calendar year	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$	NA	NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	NA	NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>	Not Exempt	Visible emissions inspection, max operating of 250 hr/yr.	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	NA	NA	NA

**COMBUSTION EQUIPMENT
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

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alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Propane Spark Ignited Communication Auxiliary Generator
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4,373,576 meters N; 690,373 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. **Maximum** design horsepower **OUTPUT** (horsepower per hour) 80
(Please provide for internal combustion engines only)
- b. **Maximum** design heat **INPUT** (million Btu per hour) 0.66 mmBtu/hr¹ (260 ft³ propane/hr)
(Please provide for all combustion units except for internal combustion engines)
- c. *Requested operating time: time of day 00:00 to 24:00

Hours per day 24 Days per year 365 Hours per year 4000

*Note: Please complete if other than the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

¹ Assuming a heat capacity for propane of 2.53 mmBtu/1000ft³.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btu's)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
No. 2 Diesel	gallons				
Gasoline	gallons				
Propane	gallons/cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other LPG	260 cubic feet	Approx. 2.53 mmBtu per 1,000 ft ³		15.0 gr/100 ft ³	

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario, please specify primary fuel and percentage on a maximum hourly and annual basis. If fuel blending is the primary fuel, identify percentages of each fuel blended. Attach additional information to this form if necessary.

*Firing of waste oil will require multi-metals test to ensure fuel is non-hazardous.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters. This section must be completed.

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)	uncontrolled	
Pollutant(s) Controlled	NA	
Manufacturer	NA	
Manufacturer's Guarantee (see Note 1)	NA	
Stack height (feet from ground level)	4.5	
Stack inside diameter (feet)	0.33	
Temperature (°F) at design capacity	1,162	
Stack exit velocity (feet per second)	97.5	
Gas volume flow rate: actual cubic feet per minute	2,069	
Gas volume flow rate: dry standard cubic feet per minute	494	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Hours of operation and fuel consumption for all days in the calendar year that the unit is operated will be monitored and recorded on a daily basis.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.006	0.01	lb/hr = 0.006 ton/yr = lb/hr x 4000 hr / 2000 lb/ton C&B provided lb/hr emission factor
Particulates as PM ₁₀	0.006	0.01	lb/hr = 0.006 ton/yr = lb/hr x 4000 hr / 2000 lb/ton C&B provided lb/hr emission factor
Sulfur Dioxide	0.015	0.03	lb/hr = 0.015 ton/yr = lb/hr x 4000 hr / 2000 lb/ton C&B provided lb/hr emission factor
Carbon Monoxide	0.032	0.06	lb/hr = 0.032 ton/yr = lb/hr x 4000 hr / 2000 lb/ton C&B provided lb/hr emission factor
Oxides of Nitrogen	0.19	0.38	lb/hr = 0.19 ton/yr = lb/hr x 4000 hr / 2000 lb/ton C&B provided lb/hr emission factor
Volatile Organic Compounds	0.005	0.01	lb/hr = 0.005 ton/yr = lb/hr x 4000 hr / 2000 lb/ton C&B provided lb/hr emission factor
Lead	NA	NA	
Hydrogen Sulfide	NA	NA	
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
<p>NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment</p> <p>1. Source may not cause or permit the emission of PM₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas:</p> <p>a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat.</p> <p>b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X^{-0.231}</p> <p>c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X^{-0.568}</p> <p>2. For the purposes of paragraphs b and c of subsection 1:</p> <p>a. "X" means the operating rate in million Btu's per hour.</p> <p>b. "Y" means the allowable rate of emission in pounds per million Btu's.</p>	Not Exempt	Heat input < 10 mmBtu/hr = 0.6 lb/MMBtu Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 4000 hours per calendar year	NA												
<p>SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table:</p> <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025	Not Exempt	0.6 lb/hr per million	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
<p>SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X^{-0.231}</p> <p>Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – heat input < 10 mmBtu/hr	NA	NA												
<p>SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment</p> <p>For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X^{-0.568}</p> <p>where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.</p>	Exempt – less than 4,000 mmBtu/hr	NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	NA	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	NA	NA	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>	NA	NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.	Not Exempt	0.7(0.65) = 0.455 lb/hr Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 4000 hours per calendar year	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.	Not Exempt	0.7(0.65) = 0.455 lb/hr Will monitor and record hours of operation and fuel consumption daily, will operate a max. of 4000 hours per calendar year	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$	NA	NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>	NA	NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>	NA	NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>	Not Exempt	Visible emissions inspection, max operating of 4000 hr/yr	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>	NA	NA	NA

STORAGE SILO EMISSION UNIT FORMS

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Coal Storage Dome (#1) – Dust collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4375371 meters N; 689443 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) 40,000
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill) _____
- c. *Requested loading rate (tons per hour): 4,000
*Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) 2,600
Requested unloading rate (tons per year) 22,776,000
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) Coal

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	6	
Stack inside diameter (feet)	7.25	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	60.5	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	150,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	6	
Stack inside diameter (feet)	7.25	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	60.5	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	150,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) for the entire coal handling system will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	6.43	28.16	Emissions (ton/yr) = flowrate (150,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	6.43	28.16	Emissions (ton/yr) = flowrate (150,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) <u>Emissions of Particulate Matter - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X ^{-0.568} where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		$E = 55(4,000)^{0.11} - 40$ $E = 96.96$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Coal Storage Dome (#2) – Dust collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4375314 meters N; 689666 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) 40,000
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill)
- c. *Requested loading rate (tons per hour): 4,000
*Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) 2,600
Requested unloading rate (tons per year) 22,776,000
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) Coal

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process: (baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	6	
Stack inside diameter (feet)	7.25	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	60.5	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	150,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	6	
Stack inside diameter (feet)	7.25	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	60.5	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	150,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) for the entire coal handling system will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	6.43	28.16	Emissions (ton/yr) = flowrate (150,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	6.43	28.16	Emissions (ton/yr) = flowrate (150,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: $Y = 1.02X^{-0.231}$ c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: $Y = 17.0X^{-0.568}$ 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.	NA	NA	NA
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: 			

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>	NA	NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>	Not exempt	$E = 55(4,000)^{0.11} - 40$ $E = 96.96$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.	NA	NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.	NA	NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$	NA	NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904}$ ($0.292P^{0.904}$) When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>	Not exempt	Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Coal Tripper Floor Unit #1 Dust Collector A
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
 ☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4375264 meters N; 690018 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) TBP
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill)
- c. *Requested loading rate (tons per hour): 2,600
 *Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) TBP
 Requested unloading rate (tons per year) TBP
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
 Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) Coal

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	120	
Stack inside diameter (feet)	3.0	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	56.5	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	23,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	120	
Stack inside diameter (feet)	3.0	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	56.5	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	23,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) for the entire coal handling system will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.99	4.3	Emissions (ton/yr) = flowrate (23,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.99	4.3	Emissions (ton/yr) = flowrate (23,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: $Y = 1.02X^{-0.231}$ c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: $Y = 17.0X^{-0.568}$ 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: $Y = 1.02X^{-0.231}$ Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		$E = (2,600)P^{0.11} - 40$ E = 90.62 record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Coal Tripper Floor Unit #1 Dust Collector B
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4375264 meters N; 690018 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) TBP
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill) _____
- c. *Requested loading rate (tons per hour): 2,600
*Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) TBP
Requested unloading rate (tons per year) TBP
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) Coal

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	120	
Stack inside diameter (feet)	3.0	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	56.5	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	23,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

STORAGE SILO APPLICATION FORM CONTINUED

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process: (baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	120	
Stack inside diameter (feet)	3.0	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	56.5	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	23,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) for the entire coal handling system will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.99	4.3	Emissions (ton/yr) = flowrate (23,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.99	4.3	Emissions (ton/yr) = flowrate (23,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: $Y = 1.02X^{-0.231}$ c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: $Y = 17.0X^{-0.568}$ 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: $Y = 1.02X^{-0.231}$ Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		$E = 55(2,600)^{0.11} - 40$ $E = 90.62$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 (<i>State Only Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Coal Tripper Floor Unit #2 Dust Collector A
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
 ☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4375264 meters N; 690018 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) TBP
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill)
- c. *Requested loading rate (tons per hour): 2,600
 *Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) TBP
 Requested unloading rate (tons per year) TBP
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
 Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) Coal

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	120	
Stack inside diameter (feet)	3.0	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	56.5	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	23,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	120	
Stack inside diameter (feet)	3.0	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	56.5	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	23,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) for the entire coal handling system will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.99	4.3	Emissions (ton/yr) = flowrate (23,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.99	4.3	Emissions (ton/yr) = flowrate (23,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

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Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: $Y = 1.02X^{-0.231}$ c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: $Y = 17.0X^{-0.568}$ 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: $Y = 1.02X^{-0.231}$ Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		$E = (2,600)P^{0.11} - 40$ $E = 90.62$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Coal Tripper Floor Unit #2 Dust Collector B
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4375264 meters N; 690018 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) TBP
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill) _____
- c. *Requested loading rate (tons per hour): 2,600
*Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) TBP
Requested unloading rate (tons per year) TBP
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) Coal

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	120	
Stack inside diameter (feet)	3.0	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	56.5	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	23,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.005 gr/dscf	
Stack height (feet from ground level)	120	
Stack inside diameter (feet)	3.0	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	56.5	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	23,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) for the entire coal handling system will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.99	4.3	Emissions (ton/yr) = flowrate (23,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.99	4.3	Emissions (ton/yr) = flowrate (23,000 scfm) x grain load (0.005 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: $Y = 1.02X^{-0.231}$ c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: $Y = 17.0X^{-0.568}$ 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
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SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		$E = 55(2,600)^{0.11} - 40$ E = 90.62 record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Limestone Silo A Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4374864 meters N; 690108 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) TBP
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill) _____
- c. *Requested loading rate (tons per hour): 600
*Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) TBP
Requested unloading rate (tons per year) TBP
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) Limestone

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	80	
Stack inside diameter (feet)	0.525	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	58.17	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	700	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

STORAGE SILO APPLICATION FORM CONTINUED

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process: (baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	80	
Stack inside diameter (feet)	0.525	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	58.17	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	700	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.06	0.3	Emissions (ton/yr) = flowrate (700 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.06	0.3	Emissions (ton/yr) = flowrate (700 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100</td><td>0.352</td></tr><tr><td>1,000</td><td>0.206</td></tr><tr><td>10,000</td><td>0.091</td></tr><tr><td>100,000</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100	0.352	1,000	0.206	10,000	0.091	100,000	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100	0.352														
1,000	0.206														
10,000	0.091														
100,000	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(1)(c) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.</p>		NA	NA
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		$E = 55(600)P^{0.11} - 40$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u></p> <ol style="list-style-type: none"> Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel. 		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				
8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.						
NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: E = 0.292P ^{0.904} 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.		NA	NA			

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.746 - <i>(Federally Enforceable SIP Requirement)</i> <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - <i>(Federally Enforceable SIP Requirement)</i> <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Limestone Silo B Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4374864 meters N; 690108 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) TBP
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill) _____
- c. *Requested loading rate (tons per hour): 600
*Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) TBP
Requested unloading rate (tons per year) TBP
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) Limestone

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	80	
Stack inside diameter (feet)	0.525	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	58.15	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	700	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	80	
Stack inside diameter (feet)	0.525	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	58.15	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	700	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.06	0.3	Emissions (ton/yr) = flowrate (700 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.06	0.3	Emissions (ton/yr) = flowrate (700 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100</td><td>0.352</td></tr><tr><td>1,000</td><td>0.206</td></tr><tr><td>10,000</td><td>0.091</td></tr><tr><td>100,000</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100	0.352	1,000	0.206	10,000	0.091	100,000	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100	0.352														
1,000	0.206														
10,000	0.091														
100,000	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(1)(c) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.</p>		NA	NA
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		$E = 55(600)^{0.11} - 40$ E = 71.16 record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.732 - (Federally Enforceable SIP Requirement) <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - (Federally Enforceable SIP Requirement) <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>NAC 445B.2204, 445B.22043, 445B.22047 (State Only Requirement) <u>Sulfur Emissions - Fuel Burning Equipment</u></p> <ol style="list-style-type: none"> Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: $Y = 0.7X$ Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, $Y = 0.4X$ Solid Fuel, $Y = 0.6X$ Combination, $Y = (L(0.4) - S(0.6))/(L + S)$ For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel. 		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				
8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.						
NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: E = 0.292P ^{0.904} 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.		NA	NA			

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.746 - <i>(Federally Enforceable SIP Requirement)</i> <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - <i>(Federally Enforceable SIP Requirement)</i> <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 <i>(State Only Requirement)</i> <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 <i>(Federally Enforceable SIP Requirement)</i> <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Fly Ash Silo (#1) – Dust collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4374998 meters N; 690177 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) TBP
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill) _____
- c. *Requested loading rate (tons per hour): 60
*Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) wet process – NA emissions
Requested unloading rate (tons per year) TBP
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) Fly Ash

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	100	
Stack inside diameter (feet)	0.62	
Temperature (°F) at design capacity	125	
Stack exit velocity (feet per second)	48.0	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	1,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process: (baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	100	
Stack inside diameter (feet)	0.62	
Temperature (°F) at design capacity	125	
Stack exit velocity (feet per second)	48.0	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	1,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.09	0.4	Emissions (ton/yr) = flowrate (1,000 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.09	0.4	Emissions (ton/yr) = flowrate (1,000 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: $Y = 1.02X^{-0.231}$ c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: $Y = 17.0X^{-0.568}$ 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: Heat input in millions of			

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		$E = 55(60)^{0.11} - 40$ E = 46.29 record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Fly Ash Silo (#2) – Dust collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4374998 meters N; 690201 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) TBP
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill) 24
- c. *Requested loading rate (tons per hour): 60
*Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) wet process – NA emissions
Requested unloading rate (tons per year) TBP
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) Fly Ash

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 g/dscf	
Stack height (feet from ground level)	100	
Stack inside diameter (feet)	0.62	
Temperature (°F) at design capacity	125	
Stack exit velocity (feet per second)	48.0	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	1,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	100	
Stack inside diameter (feet)	0.62	
Temperature (°F) at design capacity	125	
Stack exit velocity (feet per second)	48.0	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	1,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.09	0.4	Emissions (ton/yr) = flowrate (1,000 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.09	0.4	Emissions (ton/yr) = flowrate (1,000 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section..
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) <u>Emissions of Particulate Matter - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: $Y = 1.02X^{-0.231}$ c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: $Y = 17.0X^{-0.568}$ 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: $Y = 1.02X^{-0.231}$ Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		$E = 55(60)^{0.11} - 40$ $E = 46.29$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 (<i>State Only Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Bottom Ash Silo (#1) – Dust collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4374693 meters N; 690026 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) TBP
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill) 24
- c. *Requested loading rate (tons per hour): 167
*Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) wet process – NA emissions
Requested unloading rate (tons per year) TBP
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) Bottom Ash

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	100	
Stack inside diameter (feet)	0.62	
Temperature (°F) at design capacity	125	
Stack exit velocity (feet per second)	48.0	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	1,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	100	
Stack inside diameter (feet)	0.62	
Temperature (°F) at design capacity	125	
Stack exit velocity (feet per second)	48.0	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	1,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.09	0.4	Emissions (ton/yr) = flowrate (1,000 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.09	0.4	Emissions (ton/yr) = flowrate (1,000 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X ^{-0.568} where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		$E = 55(167)^{0.11} - 40$ $E = 56.57$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Bottom Ash Silo (#2) – Dust collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4374693 meters N; 690118 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) TBP
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill) _____
- c. *Requested loading rate (tons per hour): 167
*Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge TBP
- g. Requested unloading rate (tons per hour) wet process – NA emissions
Requested unloading rate (tons per year) TBP
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) Bottom Ash

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	100	
Stack inside diameter (feet)	0.62	
Temperature (°F) at design capacity	125	
Stack exit velocity (feet per second)	48.0	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	1,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process: (baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	100	
Stack inside diameter (feet)	0.62	
Temperature (°F) at design capacity	125	
Stack exit velocity (feet per second)	48.0	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	1,000	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.09	0.4	Emissions (ton/yr) = flowrate (1,000 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.09	0.4	Emissions (ton/yr) = flowrate (1,000 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X ^{-0.568} where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		$E = 55(167)^{0.11} - 40$ $E = 56.57$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Dry Sorbent Injection (DSI) Silo #1 Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4374729 meters N; 690023 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) TBP
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill)
- c. *Requested loading rate (tons per hour): 100
*Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) wet process – NA emissions
Requested unloading rate (tons per year) TBP
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) sorbent

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	75	
Stack inside diameter (feet)	0.5	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	50	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	600	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process: (baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	75	
Stack inside diameter (feet)	0.5	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	50	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	600	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.05	0.2	Emissions (ton/yr) = flowrate (600 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.05	0.2	Emissions (ton/yr) = flowrate (600 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) <u>Emissions of Particulate Matter - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: $Y = 1.02X^{-0.231}$ c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: $Y = 17.0X^{-0.568}$ 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: $Y = 1.02X^{-0.231}$ Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		$E = 55(100)^{0.11} - 40$ E = 51.28 record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Powdered Activated Carbon Silo Unit #1 Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4374718 meters N; 690023 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) TBP
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill) _____
- c. *Requested loading rate (tons per hour): 100
*Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) TBP
Requested unloading rate (tons per year) TBP
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) sorbent

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	70	
Stack inside diameter (feet)	0.5	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	50	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	600	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	70	
Stack inside diameter (feet)	0.5	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	50	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	600	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.05	0.2	Emissions (ton/yr) = flowrate (600 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.05	0.2	Emissions (ton/yr) = flowrate (600 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: $Y = 1.02X^{-0.231}$ c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: $Y = 17.0X^{-0.568}$ 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: $Y = 1.02X^{-0.231}$ Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		<p>E = 55(100)0.11 - 40 E = 51.28 record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection</p>	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Dry Sorbent Injection (DSI) Silo Unit #2 Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4374729 meters N; 690194 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) TBP
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill)
- c. *Requested loading rate (tons per hour): 100
*Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) wet process – NA emissions
Requested unloading rate (tons per year) TBP
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) Lime

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	75	
Stack inside diameter (feet)	0.5	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	50	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	600	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process: (baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	75	
Stack inside diameter (feet)	0.5	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	50	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	600	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.05	0.2	Emissions (ton/yr) = flowrate (600 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.05	0.2	Emissions (ton/yr) = flowrate (600 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: $Y = 1.02X^{-0.231}$ c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: $Y = 17.0X^{-0.568}$ 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: $Y = 1.02X^{-0.231}$ Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		$E = 55(100)^{0.11} - 40$ $E = 51.28$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Powdered Activated Carbon Silo Unit #2 Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4374718 meters N; 690194 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) TBP
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill) _____
- c. *Requested loading rate (tons per hour): 100
*Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) wet process – NA emissions
Requested unloading rate (tons per year) TBP
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) Lime

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	70	
Stack inside diameter (feet)	0.5	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	50	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	600	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	70	
Stack inside diameter (feet)	0.5	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	50	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	600	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.05	0.2	Emissions (ton/yr) = flowrate (600 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.05	0.2	Emissions (ton/yr) = flowrate (600 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: $Y = 1.02X^{-0.231}$ c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: $Y = 17.0X^{-0.568}$ 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: $Y = 1.02X^{-0.231}$ Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		<p>$E = 55(100)^{0.11} - 40$ $E = 51.28$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection</p>	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Soda Ash Storage Silo Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4374733 meters N; 689892 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) TBP
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill) _____
- c. *Requested loading rate (tons per hour): 100
*Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) wet process – NA emissions
Requested unloading rate (tons per year) TBP
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) Soda Ash

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	50	
Stack inside diameter (feet)	0.5	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	50	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	600	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	50	
Stack inside diameter (feet)	0.5	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	50	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	600	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.05	0.2	Emissions (ton/yr) = flowrate (600 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.05	0.2	Emissions (ton/yr) = flowrate (600 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

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Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) <u>Emissions of Particulate Matter - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: $Y = 1.02X^{-0.231}$ c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: $Y = 17.0X^{-0.568}$ 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: $Y = 1.02X^{-0.231}$ Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		$E = 55(100)^{0.11} - 40$ $E = 51.28$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Lime Storage Silo Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4374733 meters N; 689907 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) TBP
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill) _____
- c. *Requested loading rate (tons per hour): 100
*Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) wet process – NA emissions
Requested unloading rate (tons per year) TBP
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) Lime

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	170.6	
Stack inside diameter (feet)	0.5	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	50	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	600	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	170.6	
Stack inside diameter (feet)	0.5	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	50	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	600	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.05	0.2	Emissions (ton/yr) = flowrate (600 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.05	0.2	Emissions (ton/yr) = flowrate (600 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: $Y = 1.02X^{-0.231}$ c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: $Y = 17.0X^{-0.568}$ 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: $Y = 1.02X^{-0.231}$ Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		$E = 55(100)^{0.11} - 40$ $E = 51.28$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment Magnesium Hydroxide Storage Silo Dust Collector
- b. Standard Industrial Classification (SIC) Code 4911
- c. Manufacturer of equipment To Be Provided (TBP)
- d. Model number TBP Serial number TBP *Equip. number _____
- e. Date equipment manufactured: TBP
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☒ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- h. UTM Coordinates 4374733 meters N; 689922 meters E; Zone 11
(Please specify NAD 27 ☐ or NAD 83 ☒)
- i. Basic equipment dimensions (feet): L TBP W TBP H TBP

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) TBP
- b. Maximum loading rate (tons per hour) TBP Loading time (hours to fill) _____
- c. *Requested loading rate (tons per hour): 100
*Hours per day 24 Days per year 365 Hours per year 8760
- d. Maximum unloading rate (tons per hour) TBP
- e. Method of unloading (screw auger, etc.) TBP
- f. Continuous or batch discharge continuous
- g. Requested unloading rate (tons per hour) wet process – NA emissions
Requested unloading rate (tons per year) TBP
- h. Requested unloading time: Hours per day 24 Time of day 00:00 to 24:00
Hours per day 24 Days per year 365 Hours per year 8760
- i. Material type processed (lime, cement, flyash, etc.) Magnesium Hydroxide

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 –Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	170.6	
Stack inside diameter (feet)	0.5	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	50	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	600	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	Baghouse	
Pollutant(s) Controlled	PM ₁₀	
Manufacturer	TBP	
Manufacturer's Guarantee (see Note 2)	0.01 gr/dscf	
Stack height (feet from ground level)	170.6	
Stack inside diameter (feet)	0.5	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	50	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	600	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

Throughput (tons) will be recorded on a monthly basis. The hours of operation for the unit will be recorded on a monthly basis. The opacity from the stack discharges will be determined by conducting and recording a Method 9. The baghouse will be inspected on an annual basis, and records will show observations made and any corrective actions taken. Visual inspections of the opacity of the discharges from the exhaust stack will be performed and recorded on a quarterly basis, and the records will show observations made and any corrective actions taken.

A CAM Plan will be prepared and submitted to the NDEP-BAPC for approval.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, good air pollution control practices will be employed to minimize air quality impacts from operation. The baghouse will be checked to verify it is functioning properly.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.05	0.2	Emissions (ton/yr) = flowrate (600 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Particulates as PM ₁₀	0.05	0.2	Emissions (ton/yr) = flowrate (600 scfm) x grain load (0.01 gr/dscf) x ton/gr conversion (7.14 E-08) x time (60min/hr) x operating hrs (8760 hr/yr)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Particulates as PM ₁₀			Unit emissions are accounted for through the baghouse and are presented in the loading section.
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) <u>Emissions of Particulate Matter - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: $Y = 1.02X^{-0.231}$ c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: $Y = 17.0X^{-0.568}$ 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: $Y = 1.02X^{-0.231}$ Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		$E = 55(100)^{0.11} - 40$ $E = 51.28$ record throughput and hrs. of op. monthly, Method 5 or 17 and Method 201A stack test every 5 years, annual baghouse inspection	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 (<i>State Only Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 (<i>Federally Enforceable SIP Requirement</i>) <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		Visual in accordance w/Method 9, visual inspection quarterly	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

LIQUID STORAGE TANK EMISSION UNIT FORMS

**LIQUID STORAGE TANK
APPLICATION FORM
CLASS I-B**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

a.	Manufacturer of tank <u>TBP</u>		
b.	SIC Code <u>4911</u>	c.	Liquid Stored <u>#2 distillate</u>
d.	Date of installation <u>TBP</u>		
e.	Tank Dimensions:		
	Shell height (feet) <u>32</u>	Shell diameter (feet) <u>104</u>	
	Liquid height (feet) <u>30</u>	Average liquid height (feet) <u>27</u>	
	Volume (gallons) <u>2,000,000</u>		
f.	Paint characteristics:		
	Shell color/shade (please check one)	<input type="checkbox"/> White/white	<input type="checkbox"/> Aluminum/specular
		<input type="checkbox"/> Aluminum/diffuse	<input type="checkbox"/> Gray/light
	Shell condition _____	<input type="checkbox"/> Gray/medium	<input type="checkbox"/> Red/primer
g.	Roof color/shade (please check one)	<input type="checkbox"/> White/white	<input type="checkbox"/> Aluminum/specular
		<input type="checkbox"/> Aluminum/diffuse	<input type="checkbox"/> Gray/light
	Roof condition _____	<input type="checkbox"/> Gray/medium	<input type="checkbox"/> Red/primer
h.	Roof characteristics: Type (please check one)_:		
	<input type="checkbox"/> Cone <input checked="" type="checkbox"/> Dome <input type="checkbox"/> External floating roof <input type="checkbox"/> Internal floating roof		
	For cone or dome roof, specify height (feet) _____		
	For cone roof, specify slope (ft/ft) _____		
	For dome roof, specify radius (feet) <u>104</u>		
	Tank construction: <input checked="" type="checkbox"/> welded <input type="checkbox"/> riveted		
	Primary rim seal: <input type="checkbox"/> vapor-mounted <input type="checkbox"/> liquid-mounted <input type="checkbox"/> mechanical shoe		
	Secondary seal: <input type="checkbox"/> weather shield <input type="checkbox"/> rim-mounted <input type="checkbox"/> none		
	Roof type: <input type="checkbox"/> pontoon <input type="checkbox"/> double deck		
	Roof fittings:		
	<input type="checkbox"/> access hatch <input type="checkbox"/> gauge-float well <input type="checkbox"/> gauge-hatch/sample well		
	<input type="checkbox"/> rim vent <input type="checkbox"/> roof drains <input type="checkbox"/> roof leg <input type="checkbox"/> unslotted guide pole wells		
	<input type="checkbox"/> slotted guidepole/sample wells <input type="checkbox"/> vacuum breaker		
j.	For internal floating roof, please complete the following:		
	Primary seal: <input type="checkbox"/> resilient foam-filled <input type="checkbox"/> wiper seals <input type="checkbox"/> other (please specify) _____		
	Secondary seal: <input type="checkbox"/> resilient foam-filled <input type="checkbox"/> wiper seals <input type="checkbox"/> other (please specify) _____		
	Roof fittings:		
	<input type="checkbox"/> access hatch <input type="checkbox"/> gauge-float well <input type="checkbox"/> gauge-hatch/sample well		
	<input type="checkbox"/> rim vent <input type="checkbox"/> roof drains <input type="checkbox"/> roof leg		
	<input type="checkbox"/> unslotted guide pole wells <input type="checkbox"/> slotted guidepole/sample wells		
	<input type="checkbox"/> vacuum breaker <input type="checkbox"/> column wells (# of columns _____)		
	<input type="checkbox"/> Ladder wells <input type="checkbox"/> stub drains		
k.	True vapor pressure of liquid (psia) _____		
l.	Reid vapor pressure of liquid (psi) _____		
m.	UTM Coordinates <u>4375099</u> meters N; <u>689995</u> meters E; Zone 11		
	(Please specify NAD 27 <input type="checkbox"/> or NAD 83 <input checked="" type="checkbox"/>)		

**LIQUID STORAGE TANK
APPLICATION FORM
CONTINUED**

Section 2 - Operating Parameters

- a. Maximum throughput (gallons per year) 9,500,000
- b. Method of filling (submerged fill) submerged fill

Section 3 - Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, internal floating roof, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)	Fixed roof	
Pollutant(s) Controlled	Volatile organic compounds	
Manufacturer	TBD	
Manufacturer's Guarantee (see Note 1)		
Stack height (feet from ground level)	32	
Stack inside diameter (feet)	0.52	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	0.26	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	NA	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**LIQUID STORAGE TANK
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

The tank will be inspected annually.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**LIQUID STORAGE TANK
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			
Particulates as PM ₁₀			
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds	2.64E-02	1.16E-01	US EPA Tanks program
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Appendix 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>.0352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.0352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.0352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X ^{-0.568} where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Fuel Burning Equipment Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> Emissions of Particulate Matter - Sources Not Otherwise Limited 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		NA	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> Particulate Matter - Industrial Sources When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When "E" is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**LIQUID STORAGE TANK
APPLICATION FORM
CLASS I-B**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

a.	Manufacturer of tank <u>TBP</u>		
b.	SIC Code <u>4911</u>	c.	Liquid Stored <u>#2 distillate</u>
d.	Date of installation <u>TBP</u>		
e.	Tank Dimensions:		
	Shell height (feet) <u>32</u>	Shell diameter (feet) <u>73</u>	
	Liquid height (feet) <u>30</u>	Average liquid height (feet) <u>27</u>	
	Volume (gallons) <u>1,000,000</u>		
f.	Paint characteristics:		
	Shell color/shade (please check one)	<input type="checkbox"/> White/white	<input type="checkbox"/> Aluminum/specular
		<input type="checkbox"/> Aluminum/diffuse	<input type="checkbox"/> Gray/light
	Shell condition _____	<input type="checkbox"/> Gray/medium	<input type="checkbox"/> Red/primer
g.	Roof color/shade (please check one)	<input type="checkbox"/> White/white	<input type="checkbox"/> Aluminum/specular
		<input type="checkbox"/> Aluminum/diffuse	<input type="checkbox"/> Gray/light
	Roof condition _____	<input type="checkbox"/> Gray/medium	<input type="checkbox"/> Red/primer
h.	Roof characteristics: Type (please check one)_:		
	<input type="checkbox"/> Cone <input checked="" type="checkbox"/> Dome <input type="checkbox"/> External floating roof <input type="checkbox"/> Internal floating roof		
	For cone or dome roof, specify height (feet) _____		
	For cone roof, specify slope (ft/ft) _____		
	For dome roof, specify radius (feet) _____		
	Tank construction: <input checked="" type="checkbox"/> welded <input type="checkbox"/> riveted		
	Primary rim seal: <input type="checkbox"/> vapor-mounted <input type="checkbox"/> liquid-mounted <input type="checkbox"/> mechanical shoe		
	Secondary seal: <input type="checkbox"/> weather shield <input type="checkbox"/> rim-mounted <input type="checkbox"/> none		
	Roof type: <input type="checkbox"/> pontoon <input type="checkbox"/> double deck		
	Roof fittings:		
	<input type="checkbox"/> access hatch <input type="checkbox"/> gauge-float well <input type="checkbox"/> gauge-hatch/sample well		
	<input type="checkbox"/> rim vent <input type="checkbox"/> roof drains <input type="checkbox"/> roof leg <input type="checkbox"/> unslotted guide pole wells		
	<input type="checkbox"/> slotted guidepole/sample wells <input type="checkbox"/> vacuum breaker		
j.	For internal floating roof, please complete the following:		
	Primary seal: <input type="checkbox"/> resilient foam-filled <input type="checkbox"/> wiper seals <input type="checkbox"/> other (please specify) _____		
	Secondary seal: <input type="checkbox"/> resilient foam-filled <input type="checkbox"/> wiper seals <input type="checkbox"/> other (please specify) _____		
	Roof fittings:		
	<input type="checkbox"/> access hatch <input type="checkbox"/> gauge-float well <input type="checkbox"/> gauge-hatch/sample well		
	<input type="checkbox"/> rim vent <input type="checkbox"/> roof drains <input type="checkbox"/> roof leg		
	<input type="checkbox"/> unslotted guide pole wells <input type="checkbox"/> slotted guidepole/sample wells		
	<input type="checkbox"/> vacuum breaker <input type="checkbox"/> column wells (# of columns _____)		
	<input type="checkbox"/> Ladder wells <input type="checkbox"/> stub drains		
k.	True vapor pressure of liquid (psia) _____		
l.	Reid vapor pressure of liquid (psi) _____		
m.	UTM Coordinates <u>4373602</u> meters N; <u>689030</u> meters E; Zone 11		
	(Please specify NAD 27 <input type="checkbox"/> or NAD 83 <input checked="" type="checkbox"/>)		

**LIQUID STORAGE TANK
APPLICATION FORM
CONTINUED**

Section 2 - Operating Parameters

- a. Maximum throughput (gallons per year) 7,500,000
- b. Method of filling (submerged fill) submerged fill

Section 3 - Reserved

Section 4 - Pollution Control Equipment (this section must be completed)

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, internal floating roof, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)	Fixed roof	
Pollutant(s) Controlled	Volatile organic compounds	
Manufacturer	TBD	
Manufacturer's Guarantee (see Note 1)		
Stack height (feet from ground level)	32	
Stack inside diameter (feet)	0.52	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	0.26	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	NA	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**LIQUID STORAGE TANK
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

The tank will be inspected annually.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**LIQUID STORAGE TANK
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			
Particulates as PM ₁₀			
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds	1.59E-02	6.982E-02	US EPA Tanks program
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Appendix 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: Y = 1.02X ^{-0.231} c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: Y = 17.0X ^{-0.568} 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: Y = 1.02X ^{-0.231} Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: Y = 17.0X ^{-0.568} where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		NA	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status						
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA						
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA						
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u></td><td><u>Solid Fuels</u></td><td><u>Combination Fuel</u></td></tr><tr><td>Y = 0.7X (Y = 0.4X)</td><td>Y = 1.1X (Y = 0.6X)</td><td>Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u>	<u>Solid Fuels</u>	<u>Combination Fuel</u>	Y = 0.7X (Y = 0.4X)	Y = 1.1X (Y = 0.6X)	Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u>	<u>Solid Fuels</u>	<u>Combination Fuel</u>							
Y = 0.7X (Y = 0.4X)	Y = 1.1X (Y = 0.6X)	Y = $\frac{L(0.7) + S(1.1)}{L + S}$							

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		NA	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**LIQUID STORAGE TANK
APPLICATION FORM
CLASS I-B**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

a.	Manufacturer of tank <u>TBP</u>		
b.	SIC Code <u>4911</u>	c.	Liquid Stored <u>#2 distillate</u>
d.	Date of installation <u>TBP</u>		
e.	Tank Dimensions:		
	Shell height (feet) <u>60</u>	Shell diameter (feet) <u>14</u>	
	Liquid height (feet) <u>52</u>	Average liquid height (feet) <u>27</u>	
	Volume (gallons) <u>60,000</u>		
f.	Paint characteristics:		
	Shell color/shade (please check one)	<input type="checkbox"/> White/white	<input type="checkbox"/> Aluminum/specular
		<input type="checkbox"/> Aluminum/diffuse	<input type="checkbox"/> Gray/light
	Shell condition _____	<input type="checkbox"/> Gray/medium	<input type="checkbox"/> Red/primer
g.	Roof color/shade (please check one)	<input type="checkbox"/> White/white	<input type="checkbox"/> Aluminum/specular
		<input type="checkbox"/> Aluminum/diffuse	<input type="checkbox"/> Gray/light
	Roof condition _____	<input type="checkbox"/> Gray/medium	<input type="checkbox"/> Red/primer
h.	Roof characteristics: Type (please check one)_:		
	<input type="checkbox"/> Cone <input checked="" type="checkbox"/> Dome <input type="checkbox"/> External floating roof <input type="checkbox"/> Internal floating roof		
	For cone or dome roof, specify height (feet) _____		
	For cone roof, specify slope (ft/ft) _____		
	For dome roof, specify radius (feet) _____		
	Tank construction: <input checked="" type="checkbox"/> welded <input type="checkbox"/> riveted		
	Primary rim seal: <input type="checkbox"/> vapor-mounted <input type="checkbox"/> liquid-mounted <input type="checkbox"/> mechanical shoe		
	Secondary seal: <input type="checkbox"/> weather shield <input type="checkbox"/> rim-mounted <input type="checkbox"/> none		
	Roof type: <input type="checkbox"/> pontoon <input type="checkbox"/> double deck		
	Roof fittings:		
	<input type="checkbox"/> access hatch <input type="checkbox"/> gauge-float well <input type="checkbox"/> gauge-hatch/sample well		
	<input type="checkbox"/> rim vent <input type="checkbox"/> roof drains <input type="checkbox"/> roof leg <input type="checkbox"/> unslotted guide pole wells		
	<input type="checkbox"/> slotted guidepole/sample wells <input type="checkbox"/> vacuum breaker		
j.	For internal floating roof, please complete the following:		
	Primary seal: <input type="checkbox"/> resilient foam-filled <input type="checkbox"/> wiper seals <input type="checkbox"/> other (please specify) _____		
	Secondary seal: <input type="checkbox"/> resilient foam-filled <input type="checkbox"/> wiper seals <input type="checkbox"/> other (please specify) _____		
	Roof fittings:		
	<input type="checkbox"/> access hatch <input type="checkbox"/> gauge-float well <input type="checkbox"/> gauge-hatch/sample well		
	<input type="checkbox"/> rim vent <input type="checkbox"/> roof drains <input type="checkbox"/> roof leg		
	<input type="checkbox"/> unslotted guide pole wells <input type="checkbox"/> slotted guidepole/sample wells		
	<input type="checkbox"/> vacuum breaker <input type="checkbox"/> column wells (# of columns _____)		
	<input type="checkbox"/> Ladder wells <input type="checkbox"/> stub drains		
k.	True vapor pressure of liquid (psia) _____		
l.	Reid vapor pressure of liquid (psi) _____		
m.	UTM Coordinates <u>4374645</u> meters N; <u>690192</u> meters E; Zone 11		
	(Please specify NAD 27 <input type="checkbox"/> or NAD 83 <input checked="" type="checkbox"/>)		

**LIQUID STORAGE TANK
APPLICATION FORM
CONTINUED**

Section 2 - Operating Parameters

- a. Maximum throughput (gallons per year) 3,200,000
- b. Method of filling (submerged fill) submerged fill

Section 3 - Reserved

Section 4 - Pollution Control Equipment (this section must be completed)

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, internal floating roof, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)	Fixed roof	
Pollutant(s) Controlled	Volatile organic compounds	
Manufacturer	TBD	
Manufacturer's Guarantee (see Note 1)		
Stack height (feet from ground level)	60	
Stack inside diameter (feet)	0.52	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	0.26	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	NA	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**LIQUID STORAGE TANK
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

The tank will be inspected annually.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**LIQUID STORAGE TANK
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			
Particulates as PM ₁₀			
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds	3.98E-03	1.74E-02	US EPA Tanks program
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Appendix 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) Emissions of Particulate Matter - Fuel Burning Equipment 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: $Y = 1.02X^{-0.231}$ c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: $Y = 17.0X^{-0.568}$ 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: $Y = 1.02X^{-0.231}$ Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) Particulate Matter - Fuel Burning Equipment For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		NA	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section. SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		NA	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**LIQUID STORAGE TANK
APPLICATION FORM
CLASS I-B**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

a.	Manufacturer of tank <u>TBP</u>		
b.	SIC Code <u>4911</u>	c.	Liquid Stored <u>#2 distillate</u>
d.	Date of installation <u>TBP</u>		
e.	Tank Dimensions:		
	Shell height (feet) <u>60</u>	Shell diameter (feet) <u>14</u>	
	Liquid height (feet) <u>52</u>	Average liquid height (feet) <u>27</u>	
	Volume (gallons) <u>60,000</u>		
f.	Paint characteristics:		
	Shell color/shade (please check one)	<input type="checkbox"/> White/white	<input type="checkbox"/> Aluminum/specular
		<input type="checkbox"/> Aluminum/diffuse	<input type="checkbox"/> Gray/light
	Shell condition _____	<input type="checkbox"/> Gray/medium	<input type="checkbox"/> Red/primer
g.	Roof color/shade (please check one)	<input type="checkbox"/> White/white	<input type="checkbox"/> Aluminum/specular
		<input type="checkbox"/> Aluminum/diffuse	<input type="checkbox"/> Gray/light
	Roof condition _____	<input type="checkbox"/> Gray/medium	<input type="checkbox"/> Red/primer
h.	Roof characteristics: Type (please check one)_:		
	<input type="checkbox"/> Cone <input checked="" type="checkbox"/> Dome <input type="checkbox"/> External floating roof <input type="checkbox"/> Internal floating roof		
	For cone or dome roof, specify height (feet) _____		
	For cone roof, specify slope (ft/ft) _____		
	For dome roof, specify radius (feet) _____		
	Tank construction: <input checked="" type="checkbox"/> welded <input type="checkbox"/> riveted		
	Primary rim seal: <input type="checkbox"/> vapor-mounted <input type="checkbox"/> liquid-mounted <input type="checkbox"/> mechanical shoe		
	Secondary seal: <input type="checkbox"/> weather shield <input type="checkbox"/> rim-mounted <input type="checkbox"/> none		
	Roof type: <input type="checkbox"/> pontoon <input type="checkbox"/> double deck		
	Roof fittings:		
	<input type="checkbox"/> access hatch <input type="checkbox"/> gauge-float well <input type="checkbox"/> gauge-hatch/sample well		
	<input type="checkbox"/> rim vent <input type="checkbox"/> roof drains <input type="checkbox"/> roof leg <input type="checkbox"/> unslotted guide pole wells		
	<input type="checkbox"/> slotted guidepole/sample wells <input type="checkbox"/> vacuum breaker		
j.	For internal floating roof, please complete the following:		
	Primary seal: <input type="checkbox"/> resilient foam-filled <input type="checkbox"/> wiper seals <input type="checkbox"/> other (please specify) _____		
	Secondary seal: <input type="checkbox"/> resilient foam-filled <input type="checkbox"/> wiper seals <input type="checkbox"/> other (please specify) _____		
	Roof fittings:		
	<input type="checkbox"/> access hatch <input type="checkbox"/> gauge-float well <input type="checkbox"/> gauge-hatch/sample well		
	<input type="checkbox"/> rim vent <input type="checkbox"/> roof drains <input type="checkbox"/> roof leg		
	<input type="checkbox"/> unslotted guide pole wells <input type="checkbox"/> slotted guidepole/sample wells		
	<input type="checkbox"/> vacuum breaker <input type="checkbox"/> column wells (# of columns _____)		
	<input type="checkbox"/> Ladder wells <input type="checkbox"/> stub drains		
k.	True vapor pressure of liquid (psia) _____		
l.	Reid vapor pressure of liquid (psi) _____		
m.	UTM Coordinates <u>4374618</u> meters N; <u>690192</u> meters E; Zone 11		
	(Please specify NAD 27 <input type="checkbox"/> or NAD 83 <input checked="" type="checkbox"/>)		

**LIQUID STORAGE TANK
APPLICATION FORM
CONTINUED**

Section 2 - Operating Parameters

- a. Maximum throughput (gallons per year) 3,200,000
- b. Method of filling (submerged fill) submerged fill

Section 3 - Reserved

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, internal floating roof, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)	Fixed roof	
Pollutant(s) Controlled	Volatile organic compounds	
Manufacturer	TBD	
Manufacturer's Guarantee (see Note 1)		
Stack height (feet from ground level)	60	
Stack inside diameter (feet)	0.52	
Temperature (°F) at design capacity	68	
Stack exit velocity (feet per second)	0.26	
Gas volume flow rate: actual cubic feet per minute	NA	
Gas volume flow rate: dry standard cubic feet per minute	NA	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**LIQUID STORAGE TANK
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ? P readings.)

The tank will be inspected annually.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

(Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices. 2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**LIQUID STORAGE TANK
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			
Particulates as PM ₁₀			
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds	3.98E-03	1.74E-02	US EPA Tanks program
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Appendix 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status												
NAC 445B.2203 (<i>State Only Requirement</i>) <u>Emissions of Particulate Matter - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of PM ₁₀ resulting from the combustion of fuel in fuel-burning equipment in excess of the quantity set forth in the following formulas: a. For input of heat equal to or greater than 4 million Btu's per hour, but less than or equal to 10 million Btu's per hour, the allowable emission is 0.6 of a pound per million Btu's of input of heat. b. For input of heat greater than 10 million Btu's per hour, but less than 4,000 million Btu's per hour, the allowable emissions must be calculated using the following equation: $Y = 1.02X^{-0.231}$ c. For input of heat equal to or greater than 4,000 million Btu's per hour, the emission must be calculated using the following equation: $Y = 17.0X^{-0.568}$ 2. For the purposes of paragraphs b and c of subsection 1: a. "X" means the operating rate in million Btu's per hour. b. "Y" means the allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(a) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> Source shall not cause, suffer, allow or permit the emission of particulate matter resulting from the combustion of fuel in excess of the quantity set forth in the following table: <table><tr><td>Heat input in millions of</td><td>Maximum allowable emission of particulate matter in pounds per hour per million</td></tr><tr><td>Up to and including 10</td><td>0.600</td></tr><tr><td>100.</td><td>0.352</td></tr><tr><td>1,000.</td><td>0.206</td></tr><tr><td>10,000.</td><td>0.091</td></tr><tr><td>100,000.</td><td>0.025</td></tr></table>	Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million	Up to and including 10	0.600	100.	0.352	1,000.	0.206	10,000.	0.091	100,000.	0.025		NA	NA
Heat input in millions of	Maximum allowable emission of particulate matter in pounds per hour per million														
Up to and including 10	0.600														
100.	0.352														
1,000.	0.206														
10,000.	0.091														
100,000.	0.025														
SIP 445.731(1)(b) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> For heat inputs greater than 10 but less than 4,000 million Btu's per hour, the allowable emissions shall be calculated by using the following equation: $Y = 1.02X^{-0.231}$ Where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												
SIP 445.731(1)(c) - (<i>Federally Enforceable SIP Requirement</i>) <u>Particulate Matter - Fuel Burning Equipment</u> For heat inputs equal to or greater than 4,000 million Btu's per hour, the emissions shall be calculated by using the following equation: $Y = 17.0X^{-0.568}$ where "X" = maximum equipment capacity rate in million Btu's per hour. "Y" = allowable rate of emission in pounds per million Btu's.		NA	NA												

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>SIP 445.731(3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Fuel Burning Equipment</u> Air conditioning equipment or fuel burning equipment having a rating of less than one million kilogram-calories (4 million Btu's) per hour shall be exempted from provisions of this section.</p>		NA	NA
<p>NAC 445B.22033, 445B.22027 <i>(State Only Requirement)</i> <u>Emissions of Particulate Matter - Sources Not Otherwise Limited</u> 1. Owners or operators of stationary sources not otherwise included in NAC 445B.22027 to 445B.22037, inclusive, shall not cause or permit PM₁₀ to be discharged from any emission unit into the atmosphere in excess of the allowable emission determined by the use of the formula contained in subsection 2 or 3. 2. When the maximum allowable throughput is less than 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 4.10P^{0.67}$ 3. When the maximum allowable throughput equals or exceeds 30 tons per hour, the maximum allowable weight discharge per hour must be determined by using the following equation: $E = 55P^{0.11} - 40$ 4. For the purposes of subsections 2 and 3: (a) "E" means the maximum rate of emission in pounds per hour. (b) "P" means the maximum allowable throughput in tons per hour.</p>		NA	NA
<p>SIP 445.732 - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> Sources not otherwise included in these regulations (SIP) shall not cause, suffer, allow, or permit particulate matter to be discharged from any single source into the atmosphere in excess of the allowable emission shown in the following table. When the process weight falls between two values in the table, the maximum weight discharged per hour shall be determined by the use of the formulas contained in this section.</p> <p>SIP 445.732(2) - When the process weight rate is less than 30,000 kilograms (60,000 pounds) per hour, the maximum allowable weight discharged per hour will be determined by using the following equation: $E = 0.0193P^{0.67} (4.10P^{0.67})$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA
<p>SIP 445.732 (3) - <i>(Federally Enforceable SIP Requirement)</i> <u>Particulate Matter - Industrial Sources</u> When the process weight rate equals or exceeds 30,000 kilograms (60,000 pounds) per hour the maximum allowable discharge per hour will be determined by using the following equation: $E = 11.78P^{0.11} - 18.14 (55P^{0.11} - 40)$ "E" = Maximum rate of emission in kilograms (pounds) per hour. "P" = Process weight rate in kilograms (tons) per hour.</p>		NA	NA

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status			
NAC 445B.2204, 445B.22043, 445B.22047 <i>(State Only Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 1. Source may not cause or permit the emission of compounds of sulfur caused by the combustion of fuel in fuel-burning equipment in excess of the quantity calculated by the use of the formula in subsection 2 or 3. 2. Where an emission unit has a total input of heat of less than 250 million Btu's per hour the allowable emission must be calculated by the use of the following equation: Y = 0.7X 3. Where an emission unit has a total input of heat equal to or greater than 250 million Btu's per hour, the allowable emission of sulfur must be calculated by the use of the following equation: Liquid fuel, Y = 0.4X Solid Fuel, Y = 0.6X Combination, Y = (L(0.4) - S(0.6))/(L + S) 4. For the purposes of subsections 2 and 3: (a) "X" means the operating input of heat in millions of Btu's per hour. (b) "Y" means the allowable rate of emission of sulfur in pounds per hour. 5. For the purposes of subsection 3: (a) "L" means the percentage of total input of heat derived from liquid fuel. (b) "S" means the percentage of total heat derived from solid fuel.		NA	NA			
SIP Article 8.1 and 8.2 <i>(Federally Enforceable SIP Requirement)</i> <u>Sulfur Emissions - Fuel Burning Equipment</u> 8.2.1.1 - Where a source located on contiguous property has a total heat input of less than 63 million kg-cal (250 million Btu's) per hour the following allowable emission shall be calculated by the use of the following equation: Y = 1.26X (Y = 0.7X) "X" = Operating heat input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emission in kg (pounds) per hour.		NA	NA			
SIP Article 8.2.1.2 - Where a source located on contiguous property has a total heat input of equal to or greater than 63 million kg-cal (250 million Btu's) per hour, the allowable sulfur emission shall be calculated by the use of the following equations: <table><tr><td><u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)</td><td><u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)</td><td><u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$</td></tr></table> "X" = Operating input in millions of kg-cal (Btu's) per hour. "Y" = Allowable rate of sulfur emissions in kg (pounds) per hour. "L" = Percentage of total heat input derived from liquid fuel. "S" = Percentage of total heat input derived from solid fuel. 8.2.2 - For purposes of Article 8, "sulfur emission" means the sulfur portion of the sulfur compounds emitted.	<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$		NA	NA
<u>Liquid Fuel</u> Y = 0.7X (Y = 0.4X)	<u>Solid Fuels</u> Y = 1.1X (Y = 0.6X)	<u>Combination Fuel</u> Y = $\frac{L(0.7) + S(1.1)}{L + S}$				

Applicable Requirement Citation and Description	Explanation of A Proposed Exemption	Test Methods and/or Monitoring	Compliance Status
<p>NAC 445B.2204, 445B.22043, 445B.2205 (<i>State Only Requirement</i>) <u>Other Processes Which Emit Sulfur</u> 1. Source may not cause or permit the emission of sulfur compounds where the sulfur originates in the material being processed, excluding hydrogen sulfide and sulfur from all solid, liquid, or gaseous fuel, in excess of the quantity determined by the following equation: $E = 0.292P^{0.904}$ 2. For the purposes of subsection 1: (a) "E" means the allowable sulfur emission in pounds per hour. (b) "P" means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(1) - Source shall not cause, suffer, allow or permit the emission of sulfur compounds where the sulfur originates in the material being processed (excluding sulfur from solid, liquid, or gaseous fuel), in excess of the quantity determined by the following equation: $E = 0.271P^{0.904} (0.292P^{0.904})$ When ?E? is equal to or greater than 5 kilograms (10 pounds) per hour. Where: "E" is the allowable sulfur emission in kilograms (pounds) per hour, "P" is the total feed sulfur in kilograms (pounds) per hour. SIP 445.746(1) - When "E" is less than 5 kilograms (10 pounds) per hour, the gas stream concentration shall not exceed 1,000 ppm by volume.</p>		NA	NA
<p>SIP 445.746 - (<i>Federally Enforceable SIP Requirement</i>) <u>Other Sulfur Emitting Processes</u> SIP 445.746(3) - When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the allowable emissions shall be the sum of those allowed by the provisions of this section.</p>		NA	NA
<p>NAC 445B.22017 (<i>State Only Requirement</i>) <u>Maximum Opacity of Emissions</u> 1. Except as otherwise provided in this section and NAC 445B.2202 and 445B.22023, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods: (a) If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A. of 40 C.F.R. Part 60. (b) If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §60.13(h). 2. The provisions of this section and NAC 445B.2202 and 445B.22023 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.</p>		NA	NA
<p>SIP 445.721 (<i>Federally Enforceable SIP Requirement</i>) <u>Visible Emissions from Stationary Sources</u> These regulations (SIP) shall not apply if the presence of uncombined water is the only reason for the failure of an emission to comply with these regulations. The burden of proof to establish the application of this exemption shall be upon the person seeking to come within this exemption.</p>		NA	NA

**SURFACE AREA DISTURBANCE
APPLICATION FORM
CLASS I OPERATING PERMIT**

1. Project Name Ely Energy Center

2. Surface Area Disturbance Location:

Overall disturbance location description:

Township 19N ; Range 64E ; Section 16, 17, 20, & 21 ;

Township _____ ; Range _____ ; Section _____ ;

Township _____ ; Range _____ ; Section _____ ;

Township _____ ; Range _____ ; Section _____ ;

Township _____ ; Range _____ ; Section _____ ;

Township _____ ; Range _____ ; Section _____ ;

Township _____ ; Range _____ ; Section _____ ;

Township _____ ; Range _____ ; Section _____ ;

3. Indicate the total number of acres to be disturbed for the project 2,599 acres

4. Nevada Administrative Code 445B.22037 requires fugitive dust to be controlled (regardless of the size or amount of acreage disturbed), and requires an ongoing program, using best practical methods, to prevent particulate matter from becoming airborne. All activities which have the potential to adversely affect the local air quality must implement all appropriate measures to limit controllable emissions. Appropriate measures for dust control may consist of a phased approach to acreage disturbance rather than disturbing the entire area all at once; using wet suppression through such application methods as water trucks or water sprays systems to control wind blown dust; the application of soil binding agents or chemical surfactant to roadways and areas of disturbed soil; as well as the use of wind-break or wind-limiting fencing designed to limit wind erosion of soils.

5. Please include a dust control plan in Appendix 8 if the total number of acres to be disturbed in number 3 above equals or exceeds 20 acres. The dust control measures discussed above should be considered in the preparation of the required dust control plan. Two documents entitled "SAD Dust Control Plan Preparation Guidelines" and "SAD Fugitive Dust Control Plan" can be downloaded at www.ndep.nv.gov/bapc under Downloads. The acceptance of the dust control plan by the Bureau of Air Pollution Control does not limit the permit holder's need to control fugitive dust from the disturbance and its related activities, nor from putting into effect an ongoing program for using the best practical methods of dust control.